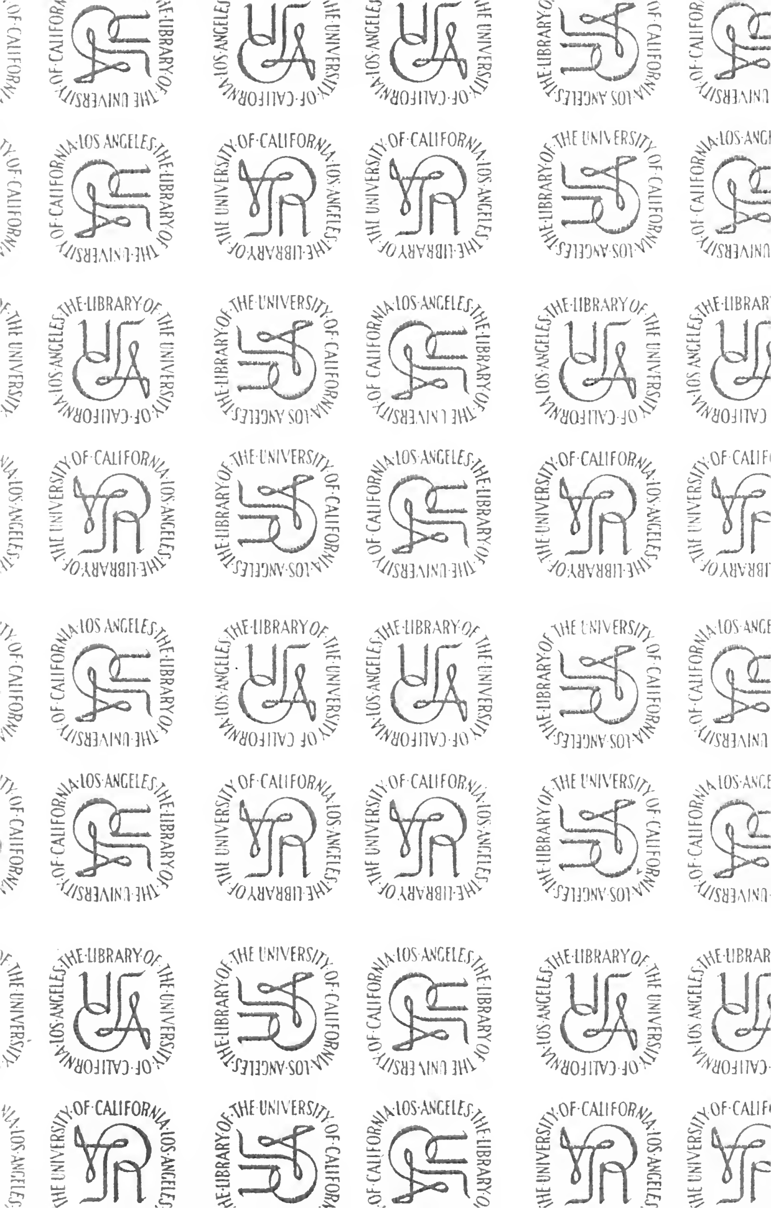
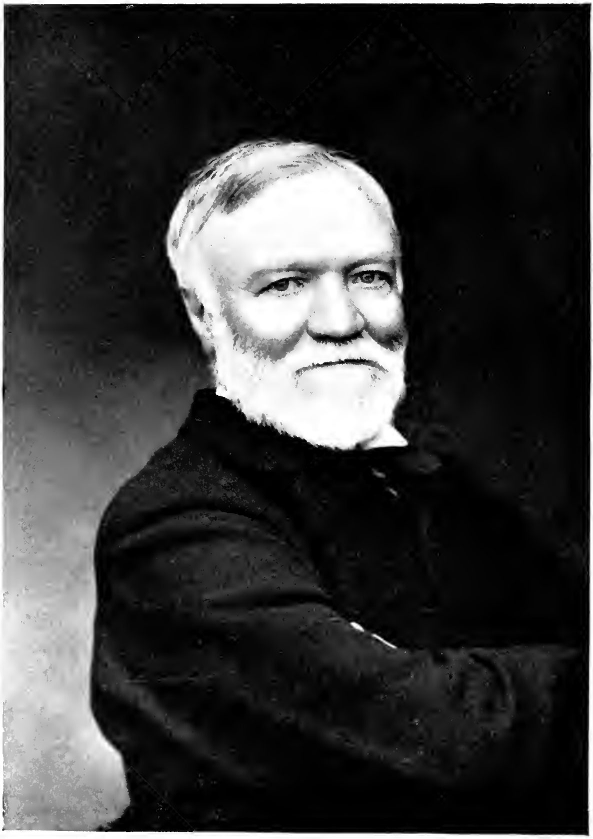
THE LIBRARY OF THE UNIVERSITY OF CALIFORNIA LOS ANGELES


THE LIBRARY OF THE UNIVERSITY OF CALIFORNIA LOS ANGELES



ANDREW CARNEGIE

From a Portrait taken in 1901 *by* ROCKWOOD, *Broadway, New York*

Frontispiece

MILLIONAIRES
AND
KINGS OF ENTERPRISE

THE MARVELLOUS CAREERS OF SOME AMERICANS WHO BY PLUCK, FORESIGHT, AND ENERGY HAVE MADE THEMSELVES MASTERS IN THE FIELDS OF INDUSTRY AND FINANCE

BY

JAMES BURNLEY

AUTHOR OF "THE INDUSTRIES AND RESOURCES OF AMERICA,"
"THE ROMANCE OF INVENTION," ETC.

WITH THIRTY-SIX PORTRAITS AND ILLUSTRATIONS

LONDON
HARMSWORTH BROTHERS, LIMITED
PHILADELPHIA: J. B. LIPPINCOTT COMPANY
1901

⁂ *Messrs. Harmsworth Brothers, Limited, are the owners of the Copyright of this Work in the British Empire.*

Printed by Ballantyne, Hanson & Co.
At the Ballantyne Press

HG
181
B93m

PREFACE

IN the United States of America there has been more real material progress during the last quarter of a century than in any other part of the world. It is there that we have to look for the men of enterprise and leading who have won the chief positions in the realms of industry, commerce, and finance. These men have been among the chief factors in the building up of the prosperity which has, after a fierce, impetuous, overwhelming struggle, given to their country unquestioned supremacy in certain important industries. They have been men of resource, genius, determination, and power. Such indomitable energy in money-making as their careers display has never before been witnessed; such fortunes as they have made have never before been equalled; such fairy tales of industrial greatness as they have lived are far more romantic than the imaginative stories of the Arabian Nights.

It cannot fail, therefore, to be of interest to attempt to trace, as has been done in this volume, the life histories of the more remarkable of these men of our later day who have infused into the far-reaching resources of the New World the irresistible spirit of progress. They are, in a far greater degree than the statesmen, politicians, and generals, the makers of their country's prosperity—the moulders of its future.

The author has had opportunities for a close investigation of the industrial situation in America; and, in presenting these Biographical Sketches, he has endeavoured to set forth the means by which the different individuals dealt with have attained their successes—not leaving out the shadows that darken the picture, although dwelling mainly on the more luminous points of material achievement. The gallery of portraits will be found to include men of nearly every branch

Howes MAR 2 1937 LIBRARY 5-3-38

264903

of trade and of industrial and financial effort, the lessons of whose conspicuous careers it will not be difficult to deduce.

Fortune-making has in all ages been the most engrossing pursuit of mankind, and never was it followed so keenly as now; never, probably, were there so many opportunities as now for entering upon it. Enterprise assumes so many different forms that those who have the necessary ambition and ability need never lack a field for the exercise of their efforts.

The picturesque beginnings of these famous men—in most cases of poor parentage, hemmed in and impeded by many difficulties—and their mastery of all obstacles by their self-denial, perseverance, and dauntless energy, are well worth studying. They afford examples of the first importance to all who are concerned in the industrial developments of the day.

In the preparation of the work the author has received much cordial assistance as to facts from many of the distinguished men about whom he has been writing, and whose personal acquaintance he has the honour to enjoy.

To Sir Hiram S. Maxim special thanks are due for the full information concerning the famous "Pom-Pom," of which pictures and interesting details are given.

In the arrangement of portraits and pictures, which copiously illustrate the book, thanks for special permission to reproduce are due in various quarters:—To the proprietors of *Punch* for Mr. Bernard Partridge's admirable cartoon of "The Macmillion"; to the proprietors of *Puck* for liberty to translate into black and white three of their spirited and suggestive coloured cartoons; to Mr. Geo. G. Rockwood, of the famous Broadway studio, New York, for the quaint snapshot of "The Wizard," and for his superb portrait of Mr. Andrew Carnegie, which forms the frontispiece; to Mr. H. S. Mendelssohn, of the Pembridge Studio, London, for the singularly interesting, up-to-date portrait of Mr. J. Pierpont Morgan; to Mr. John Brisben Walker for help from the pages of *The Cosmopolitan*; and to Mr. Frank T. Munsey for the same from his magazine.

CONTENTS

An asterisk (*) indicates that a Portrait is given.

PAGE

*ANDREW CARNEGIE, AMERICA'S GREATEST IRONMASTER 1
*JOHN D. ROCKEFELLER, THE OIL KING 17
*PHILIP DANFORTH ARMOUR, THE MEAT KING OF AMERICA 30
*W. A. CLARK, THE COPPER KING OF MONTANA 42
*CHARLES M. SCHWAB, AMERICA'S NEW STEEL KING . 50
*CHARLES TYSON YERKES, THE AMERICAN STREET RAILWAY KING 64
*J. PIERPONT MORGAN, KING OF THE TRUSTS 79
*SIR HIRAM MAXIM, THE MAN BEHIND THE GUN . . 93
LEVI Z. LEITER, AN AMERICAN NABOB 110
GEORGE WESTINGHOUSE, THE INVENTOR OF THE AIR-BRAKE 122
*GEORGE M. PULLMAN, THE PULLMAN CAR PIONEER . 133
*CHARLES RANLETT FLINT, THE RUBBER KING OF AMERICA 146
*EDISON—"THE WIZARD," THE STORY OF AMERICA'S GREATEST INVENTOR 161
*JAMES J. HILL, AN AMERICAN RAILWAY MAGNATE . . 175
THE STORY OF "CORDUROY BILL" (LETSON BALLIET). 188
W. S. STRATTON, THE COLORADO GOLD KING 200
*HAVEMEYER AND SPRECKELS, THE SUGAR KINGS OF AMERICA 212
JAMES R. KEENE, THE KING OF THE "BEARS" 224
OHIO C. BARBER, THE MATCH KING 232
JAMES DOYLE, THE VICTOR GOLD MAGNATE 240

b

Contents

PAGE

WILLIAM LUKENS ELKINS, THE PHILADELPHIA MILLIONAIRE 247
THE M'CORMICKS OF CHICAGO, THE HARVESTING MACHINE MAGNATES 251
JAMES BEN ALI HAGGIN, THE RANCH KING OF THE WEST 265
WILLIAM COLLINS WHITNEY, TRACTION MAGNATE AND POLITICIAN 271
GEORGE C. BOLDT, THE KING OF HOTEL-KEEPERS . . 285
CHARLES FLETCHER, THE TEXTILE KING 289
J. R. DE LAMAR, A MILLIONAIRE OF ADVENTURE . . 293
H. M'K. TWOMBLY, A GREAT INVESTOR 297
AUSTIN CORBIN AND ADRIAN ISELIN, TWO GREAT FINANCIERS 300
SOME WIZARDS OF WALL STREET 302
CHARLES BROADWAY ROUSS, THE BLIND MILLIONAIRE. 313
JAMES J. HEINZ, THE CONDIMENT KING 322
*WILLIAM CRAMP & SONS, THE AMERICAN SHIPBUILDER KINGS 329
SENATOR CHAUNCEY M. DEPEW, THE LAWYER KING . 340
AMERICAN LOCOMOTIVE KINGS, THE BALDWIN FIRM . 349
H. S. BLACK, THE AMERICAN "SKY-SCRAPER" KING . . 361
CORNELIUS N. BLISS, A MERCHANT PRINCE AND STATESMAN 368
THE "BONANZA" KINGS, JOHN W. MACKAY AND HIS PARTNERS 376
DARIUS OGDEN MILLS, THE MILLIONAIRE PHILANTHROPIST 385
*JAMES GORDON BENNETT, THE NEWSPAPER KING . 390
H. C. FRICK, THE COKE KING 400
D. H. MOFFATT, THE BANKER KING OF DENVER. . . 407
POTTER PALMER, A SUCCESSFUL PIONEER 414
DR. D. K. PEARSONS, THE MILLIONAIRE PHILOSOPHER . 422
*JOHN WANAMAKER, THE DEPARTMENT STORE KING . 430
THE STORY OF JOHN W. GATES, A STEEL AND WIRE FINANCIER 441
TOM LOFTUS JOHNSON, THE CLEVELAND TRACTION KING 454
*HENRY CLEWS, BANKER AND FINANCIER 461

PAGE
*CAPTAIN FREDERICK PABST, THE KING OF LAGER BEER 463
THE PILLSBURYS, THE FLOUR KINGS OF AMERICA . . 476
*KINGS OF FINANCE AND FORTUNE, THE ASTORS AND VANDERBILTS, THE GOULDS, HON. RUSSELL SAGE, AND "SILENT SMITH" 490

APPENDIX

VIEWS, CARTOONS, AND DIAGRAMS*

1. COTTAGE AT DUNFERMLINE WHERE ANDREW CARNEGIE WAS BORN . . . .
2. SOUVENIR OF DUNFERMLINE—THE OLD PALACE . .
3. TOMB OF "THE BRUCE" AT DUNFERMLINE . . .
4. SKIBO CASTLE, THE HIGHLAND HOME OF ANDREW CARNEGIE . . . .
5. CARTOON—AN OBJECT LESSON—SCHWAB (TO CARNEGIE) .
6. CARTOON—"THE MACMILLION" (AFTER BERNARD PARTRIDGE) . . . .
7. CARTOON—YOUNG AMERICA'S DILEMMA . . . .
8. CARTOON—THE MODERN SAMSON (EVILS OF STRIKES) .
9. CARTOON—PAN-AMERICAN SCULPTURE—NATIVE EXHIBITS
10. SIR HIRAM MAXIM FIRING RIFLE CALIBRE MAXIM GUN .
11. BRITISH SOLDIER FIRING THE "POM-POM" . . . .
12. THE "POM-POM" IN FIRING POSITION . . . . . .
13.
14.
15. } SIX DRAWINGS SHOWING MECHANISM OF THE "POM-POM," SIDE ELEVATION, LONGITUDINAL CENTRAL SECTION, AND WORKING OF THE MECHANISM 509

*** *Placed at intervals throughout the Volume.*

ANDREW CARNEGIE

AMERICA'S GREATEST IRONMASTER

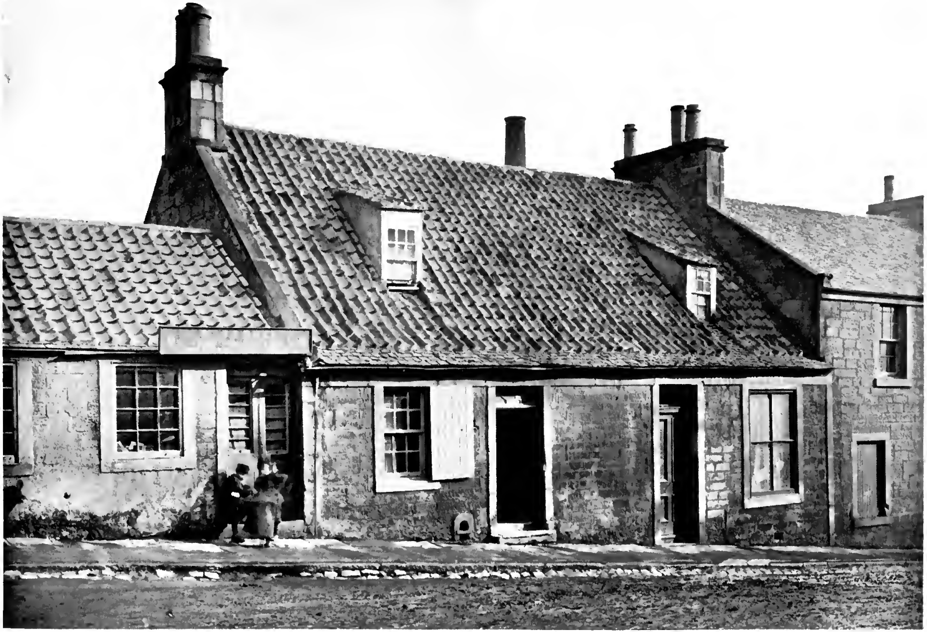
AT Skibo Castle, in North Britain, where feudal lords lived in days long gone by, there now resides a master in whom not the slightest trace of the old feudal spirit exists, but whose heart and soul are with the people from whom he sprang. He glories not in the questionable exploits of far-back ancestors, he claims no descent from warrior, statesman, or swashbuckler, he has no escutcheon to mark an ancient lineage, and yet his personality stands out clear and well defined from this background of heather and mountain and moorland, and he has a record of achievements surpassing that of any other man in the particular field of endeavour where he has won distinction. Little more than fifty years ago he left his native Scotland a poor boy, the son of a struggling hand-loom weaver, with whom the world had not gone well, and went in quest of better fortune to the United States; to-day he owns vast possessions in landed estates on both sides of the Atlantic, and until recently was the ruling power of the greatest industrial enterprise in the world, and has a fortune of at least £40,000,000. Half a century of hard, honest, and intelligent effort has made of the weaver's son a mightier man than the greatest and best of the titled worthies and unworthies who in days of old held state and sway in Skibo Castle—transformed him from the depths of poverty to the height of worldly riches. Yet through all this wonderful change his individuality has remained the same; what the boy was in feelings, sympathies, and aspirations the man is, and although there are no heraldic devices hanging on his castle walls to tell of ancient fame, he has treasured in his heart memories that are far more precious to him, of a sturdy, upright, God-fearing father, and a tender, affectionate, and intensely womanly mother, who left him the birthright of an honest independence of spirit and a brave self-reliance—more to him than if the blood of kings coursed through his veins.

A BRILLIANT ACHIEVEMENT.

Andrew Carnegie has accomplished more in three short decades than any other man of his day. In Great Britain we have immense industrial undertakings that have taken generations of prosperous plodding to build up, but the biggest of these is small by comparison with the gigantic enterprise at Pittsburgh with which Mr. Carnegie's name is indelibly associated, and which his administrative genius and forceful ability have in a large measure created and developed. In the entire history of metallurgical progress there is no instance of a success so rapid and complete as this. The hour and the man came together. Without any previous training for the position, Andrew Carnegie may be said to have leaped almost at a single bound from obscurity to eminence—from poverty to fortune.

HARD TIMES.

Mr. Carnegie was born in Dunfermline, Scotland, in 1837, in a humble cottage, which still stands to commemorate the event. In this lowly cottage, clean, uncarpeted, and quaint, William Carnegie, the father, toiled early and late at damask weaving, and found it hard to provide for the wants of his small family, for those were the days when steam-power was fast thrusting hand-labour aside in everything connected with the textile manufactures. Factories, in which steam-looms performed the weaving processes with ten times the rapidity of the old hand-looms, were being established in all the large manufacturing centres, and ultimately several were put up in Dunfermline, and a day came when William Carnegie's employer intimated to him that it would be impossible to give him any further weaving to do at home. Mr. Andrew Carnegie



COTTAGE IN THE ANCIENT SCOTTISH ROYAL BURGH OF DUNFERMLINE

In the Attic of the House next to where the children are standing, Andrew Carnegie was born in 1837

From a Photograph by JAMES NORVAL, *Dunfermline*

vividly remembers the time when his father returned to the cottage after delivering his last piece of work, and had to tell his wife that his old means of livelihood had been taken from him. There was deep sorrow in the little household. The shadow of poverty pressed more closely than ever. What were they to do? Andrew was about ten years of age when this blow fell, but he had intelligence enough to feel the seriousness of their position. As he says, "the lesson burned deep into his heart," and he determined that sooner or later he would himself lift the burden of poverty from their lives. It was little, however, that he could do to help in the bread-winning for the family then, but he always kept before him the hope of one day being able to put a touch of sunshine into their family existence.

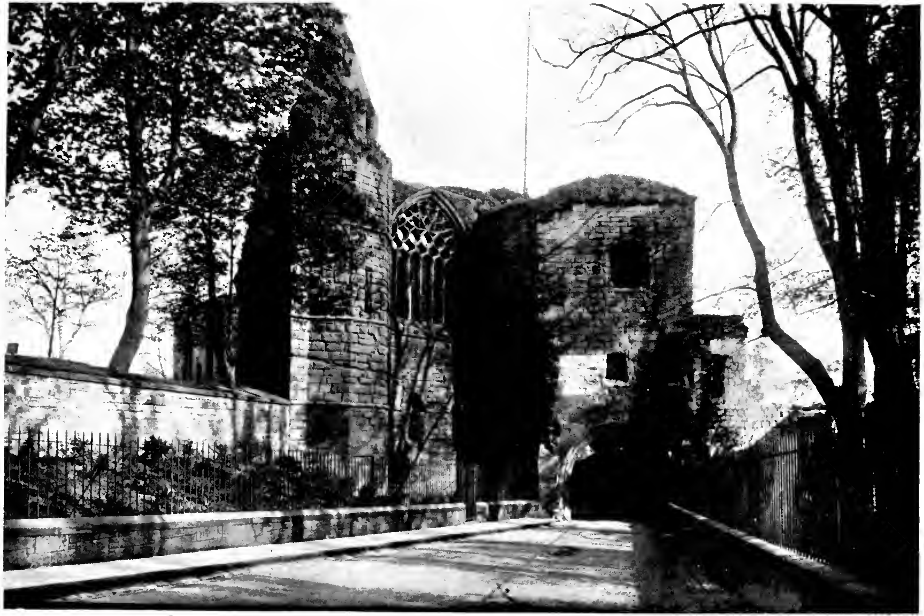
THE START FOR AMERICA.

As far as William Carnegie was concerned, Dunfermline seemed to be played out. Deprived of his old occupation, and having no knowledge of any other, he began to think seriously of seeking a fresh field of labour in the New World. Many of his old friends, under a similar pressure of unfortunate circumstances, had emigrated, and the tidings that drifted back to the old country regarding these struggling exiles were encouraging and hopeful. Considering these things more with the view of providing better opportunities for their two boys, Andrew and Thomas, than of making headway for themselves, William Carnegie and his wife ultimately decided to sell the old looms and the household gods, and start for America. It cost them many a pang to break away from the old home and the old ties, but "their duty to the boys" weighed more than everything else in their minds. At last the step was taken, and the Carnegies sailed away for America, hopeful of finding fairer prospects awaiting them.

They had friends in Alleghany City, Pennsylvania, and it was to that place that they proceeded. To begin with, they found the condition of things practically the same as in Dunfermline. Steam-power had gone on ahead of them, and the only thing that William Carnegie could do was to accept a position as weaver in one of the cotton factories of Alleghany City. He did not mind, however, so long as the boys got their chances. But success has to be worked for and waited for, whether under Republican institutions or under a Monarchy. There was no royal road to it even in Alleghany City, so Andrew Carnegie, at the age of twelve, began his working career as a bobbin-boy in the factory where his father was employed, earning what to him seemed the princely sum of five shillings a week. This was the lad's preparation for subsequent apprenticeship as a business man. "I cannot tell you how proud I was," says Mr. Carnegie, "when I received my first week's own earnings, no longer entirely dependent upon my parents but at last admitted to the family partnership. I think this makes a man out of a boy sooner than anything else. It is everything to feel you are useful."

RAPID PROMOTION.

Alleghany City in those days was only a place of some 10,000 inhabitants, and across the river was Pittsburgh, then also but the beginning of a large city and with little about it to give evidence of its one day becoming the iron and steel metropolis of America. The whole region, however, was seething with activity and alive with business developments. It was the very spot for a boy of ability like Andrew Carnegie, who was as quick to discover opportunities as to seize upon them. From bobbin-boy he was promoted to the position of engine-tender, assuming the charge of the small steam-engine used for running the modest cotton-mill; and after a few months of that responsible and arduous work he contrived to advance another step upward. Always looking and longing for a more active sphere of labour, he at the age of fourteen applied for a place in the office of the Ohio Telegraph Company at Pittsburgh, and, to begin with, obtained employment as a messenger at ten shillings a week, later on being promoted to a clerkship. "My entrance into the telegraph office," writes Mr. Carnegie,



SOUVENIR OF ANDREW CARNEGIE'S BIRTHPLACE

Part of the old Palace, Dunfermline, enlarged by James IV. in 1500. There Charles I. was born in 1600, and there Charles II., in 1650, subscribed "The Solemn League and Covenant."

"was a transition from darkness to light, from firing a small engine in a dark and dirty cellar to a clean office with bright windows and a literary atmosphere, with books, newspapers, pens, and pencils all around me. I was the happiest boy alive."

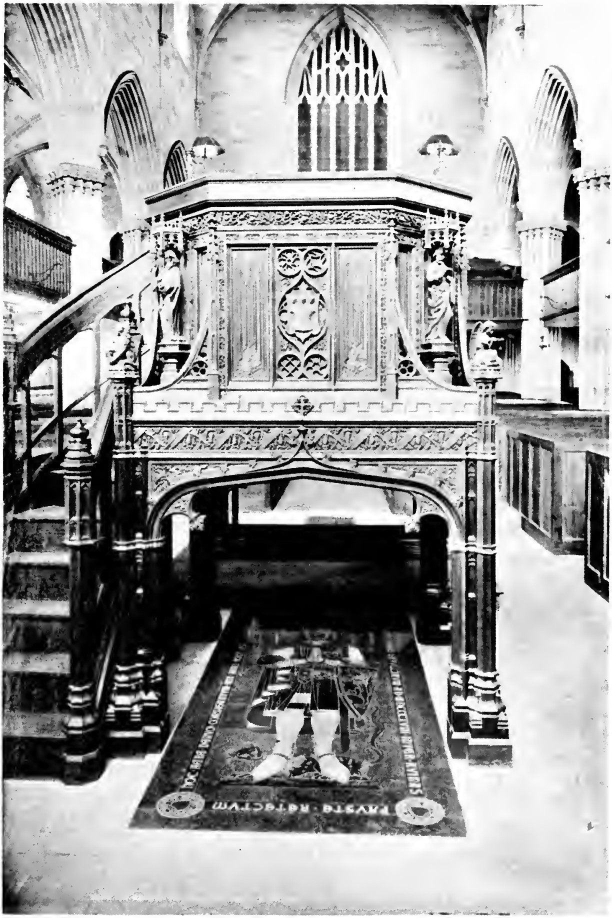
The Dunfermline lad now earned a salary of £5 a month. Referring to this period, Mr. James D. Reid, who was telegraph superintendent, and afterwards wrote a "History of the Telegraph," says: "I liked the boy's looks, and it was easy to see, though he was little, he was full of spirit. He had not been with me a month when he began to ask whether I would teach him to telegraph. I began to instruct him and found him an apt pupil. He spent all his spare time in practice, sending and receiving by sound and not by tape, as was largely the custom in those days. Soon he could do as well as I could at the key, and then his ambition carried him away beyond doing the drudgery of messenger work."

But there was cloud as well as sunshine for the lad. His father died about this time, and upon Andrew fell the burden of having to support the family, for his brother Thomas was too young to be of any assistance in that direction. But Andrew did not shrink from the task. His energy and diligence gained him the favour of his employers, and after a time they advanced him to the more lucrative position of operator. In addition to this he also earned a little money by copying telegrams for the newspapers. He was untiring in his exertions, and spared no pains to obtain a thorough knowledge of all that pertained to his work. Finding himself in contact with older and more experienced men he soon became as expert an operator as the best of them, and took a real delight in his work. Such assiduity and intelligence as he displayed was bound to come under the notice of his superiors and open up better chances for him. Therefore, when the local superintendent of the Pennsylvania Railway Company happened to be casting about for a new operator he had his attention drawn to Andrew Carnegie, who was straightway engaged at a salary of £7 a month.

A NEW SPHERE OF LABOUR.

In his new sphere of labour Mr. Carnegie soon made himself at home. The broader his field of operation the more energetic he became, and it was not long before he began to reveal those special qualities of manly shrewdness and business intuition which have been the controlling forces of his exceptional career. He was no mere slave of the pen, no abject follower of routine, no simple worker-out of another man's ideas. He had an abundance of schemes, projects, and notions of his own, was always ready with clever suggestions, and showed a capacity for mastering details that was very remarkable in one so young. He had no pleasures outside his work, except such as spring from books and study and store the mind with useful knowledge; but, no matter what he took in hand, it was the practical side of it that appealed to him. A practical thoughtfulness was the distinguishing feature of his character even at this early stage of his career.

There was now no holding him back. He made such a good impression upon Colonel Thomas A. Scott, the superintendent, that that official made him his secretary, and here again was advancement and increase of remuneration for the young Scotsman, and so admirably did he apply himself to his new duties that when a little later Colonel Scott became vice-president of the Pennsylvania Company he gave to Andrew Carnegie the responsible post of superintendent of the Pittsburgh division of this important line, previously held by Colonel Scott himself. At this period Pittsburgh was one of the most active industrial centres in the country. Developments were in progress on all sides. Mr. Carnegie saw around him a scene of bustling energy which yielded fresh fuel to the fires of his ambition, and he came to the determination to force himself into a still more prominent position in the building up of the future of this great and growing community. As he watched the belching flames of the iron furnaces that one after another were being erected in the picturesque valley through which the Alleghany River, ever growing blacker and blacker,



Souvenir of Andrew Carnegie's Birthplace.—Tomb of "The Bruce" (the Victor of Bannockburn)

This is part of the fine Collegiate Church, Dunfermline, contiguous to the ancient Abbey, which was founded, between 1070 and 1086, by Malcolm and his Queen—a monastery of Culdees. Here Edward II. of England resided some months in 1304. On leaving he set it on fire. It was rebuilt by Bruce, and here his body was interred.

wound its way; as he watched the trains of coal waggons come in day by day from the scarred and scorched hillsides where the mines were being worked, the future ironmaster was possessed with an enthusiastic desire to be one of the leaders of the New Inferno.

A TURNING-POINT.

It happened about this time that the Pennsylvania Railway Company decided to supersede their wooden railway bridges, such as were usual in those days in America, by iron structures, and the first bridge to be changed was the one at Pittsburgh which was under Mr. Carnegie's control. This was his first great opportunity. He saw that iron was destined to supplant wood for bridges, and he resolved, if possible, to identify himself with this great work of transformation. To think was to act with Mr. Carnegie; he therefore took the bold step of proposing to undertake the iron bridge work for his railway company, and the result was the establishment under his direction of the Keystone Bridge Ironworks at Pittsburgh.

Before this turning-point in his career had been reached, however, Mr. Carnegie had been compelled to turn aside for a while from the work of railway management to duties of a more trying character in connection with the Civil War. On the breaking out of the Rebellion he had been summoned to Washington by his old master, Colonel Scott, who was then filling the position of Assistant Secretary of War, and asked to take charge of the military railway and telegraph organisation of the Federal Army. But one answer could be made to such a request, and Mr. Carnegie bent all his energies to the carrying out of the Government's plans. Railway communication with the capital had been broken down, and Mr. Carnegie had to make the journey by water from Philadelphia to Annapolis. At the latter place he set to work with a large force to repair the line and restore communication with Washington, a difficult and dangerous task. General Butler, with the Massachusetts troops, was encamped in the neighbourhood, awaiting the re-opening of the line. The work was pushed rapidly through under Mr. Carnegie's energetic direction, and when it was finished he started the first train, and rode on the locomotive all the way to Washington. While making this journey he observed that the Confederates had pinned the telegraph wires to the ground at certain points to prevent their being used, but he had the train stopped—jumped off and released the wires—suffering a severe gash in his cheek by the bounding up of one wire, which caused him to enter Washington bleeding profusely. From this time onward Mr. Carnegie's services were freely rendered in aid of the railway and telegraphic equipments of the army, and at the Battle of Bulls Run and at other places he had many narrow escapes.

THE FIRST INVESTMENT.

Long before these stirring incidents took place, however, Mr. Carnegie had acquired a more or less substantial footing in the world. He was not rich, but he had passed the point of struggle and hardship, and had saved a little money. His first investment was ventured upon under the advice of Colonel Scott, when he purchased ten shares in the Adams Express Company, valued at £100. This initial financial speculation cost him the bulk of his savings while working as a telegraph operator. A little later another speculation tempted him. "Well do I remember," says Mr. Carnegie, in his cheery way, "when a clerk in the service of the Pennsylvania Railway Company, a tall, spare, farmer-looking kind of man, came to me when I was sitting on the end seat of a rear car looking over the line. He said he had been told by the conductor that I was connected with the railroad company, and he wished me to look at an invention he had made. With that he drew from a green bag a small model of a sleeping berth for railway cars. He had not spoken a minute when, like a flash, the whole range of the discovery burst upon me. 'Yes,' I said, 'that is something which the continent must have.' I promised to address him on the matter as soon as I had talked it

W. Crooke
EDINBURGH

ANDREW CARNEGIE

From a Portrait taken in June 1895, *by* WILLIAM CROOKE, *Edinburgh*

over with my superiors. I could not get that blessed sleeping-car out of my head. Upon my return I laid it before Mr. Scott, declaring that it was one of the inventions of the age. He remarked, 'You are enthusiastic, young man, but you may ask the inventor to come and let me see it.' I did so, and arrangements were made to build two special cars and run them on the Pennsylvania Railroad. I was offered an interest in the venture, which I, of course, gladly accepted. Payments were to be made 10 per cent. per month after the cars were delivered. The Pennsylvania Railway Company guaranteed to the builders that the cars should be kept upon the line and under their control. This was all very satisfactory until the notice came that my share of the first payment was £43. How well I remember the exact sum, but £43 was as far beyond my means as if it had been a million. I was earning £10 a month, however, and I had prospects, or at least I always felt that I had. What was to be done? I decided to call on the local banker, Mr. Lloyd, state the case, and boldly ask him to advance the sum upon my interest in the affair. He put his hand on my shoulder and said, 'Why, of course, Andie; you are all right; go ahead; here is the money.' It is a proud day for a man when he pays his last note, but not to be named in comparison with the day on which he makes his first one, and gets a banker to take it. I have tried both, and I know. The cars paid the subsequent payment by their earnings. I paid the first note from my savings, so much per month, and thus did I get my foot upon fortune's ladder. It is easy to climb after that. A triumphant success was scored, and thus did sleeping-cars come into the world. My dear, quiet, farmer-looking friend was Mr. T. T. Woodruff. After him came Mr. Pullman, who caught the idea up eagerly and soon eclipsed all rivals in the great work of car development." Had Mr. Carnegie devoted all his heart and mind to the sleeping-car question, as he afterwards did to the iron trade, we might to-day be travelling in Carnegie cars instead of Pullman's.

A Venture in Oil.

At another time it seemed likely that Mr. Carnegie would blossom forth as an oil magnate. When the first discoveries in the Pennsylvania oil fields were made, and speculators were making a wild rush to that curious scene, Mr. Carnegie was induced to take a hand in the game. In company with several others he purchased the now famous Storey Farm on Oil Creek, where a very productive well had been struck. "When I first visited this well," Mr. Carnegie relates, "the oil was running into the creek, where a few flat-bottomed scows lay filled with it, ready to be floated down to the Alleghany River upon an agreed-upon day each week when the creek was flooded by means of a temporary dam. This was the beginning of the natural oil business. We purchased the farm for £8000, and so small was our faith in the ability of the earth to yield for any considerable time the 100 barrels per day, which the property was then producing, that we decided to make a pond capable of holding 100,000 barrels of oil, which we estimated would be worth when the supply ceased £200,000. Unfortunately for us, the pond leaked fearfully, evaporation also caused much loss, but we continued to run oil in to make the losses good day by day, until several 100,000 barrels had gone in this way. Our experience with the farm may be worth reciting. Its value rose to £1,000,000; that is, the shares of the company sold in the market upon this basis, and one year it paid in cash dividends £200,000, rather a good return on an investment of £8000."

The Chance of his Life.

But it was neither in sleeping-cars nor in oil that Mr. Carnegie was destined to make his great industrial conquests. Mr. G. M. Pullman went ahead in one direction; Mr. J. D. Rockefeller in the other; and Mr. Carnegie, when once he had identified himself with the iron industry, forsook every other enterprise and gave himself to that alone. And what a profitable field it was! What splendid opportunities there were in it! Here was a young and vigorous country just breaking the ground of her vast mineral treasures, and eager to enter into competition with the older nations of the world. The Keystone Ironworks were a success from the outset. They not only turned out the iron for the first iron bridge across the Ohio River, but for many others, and were kept active night and day. It soon became necessary to make extensions, and the Union Ironworks were bought and added to the enterprise. Then a little later the Edgar Thomson Steel Rail Works were secured. Mr. Carnegie had paid a visit to England in 1868, and had observed that on the leading English railways steel rails were being put down instead of iron ones. The Bessemer process, then perfected, had made this revolution possible, and Mr. Carnegie was quick to discern that the iron business was entering upon a new era. He lost no time in introducing the Bessemer process into his mills at Pittsburgh, and was soon making steel rails in competition with the English manufacturers. The impetus that was given to Mr. Carnegie's business by this change of methods was remarkable. The demand for the products of the Carnegie works increased month by month, and great as was the magnitude of the many mills, still further enlargements had to be made. At this time the Homestead Works, carried on by another company, were the chief local competitors of Mr. Carnegie, and he placed them out of rivalry and augmented his own enterprise materially by effecting their purchase. By 1888 he had built or acquired seven distinct iron and steel works, all of which came to be included in the Carnegie Company's holdings. These various plants were within a radius of five miles of Pittsburgh, and had an aggregate productive capacity of 140,000 tons of pig-iron per month and 160,000 tons of steel ingots. Over 100 locomotives, standard and narrow gauge, were used in moving material about the various yards, and inside the works electricity played an important part in handling heavy masses, and in collecting and arranging the small parts of great structures. Masses weighing 200 tons were handled with perfect ease by the powerful electric machines. In the steel industries alone about 15,000 men were employed, to say nothing of the great number in the coke works, mines, operations of transportation, &c., which swelled the total to about 27,000. The monthly pay-roll exceeded £250,000—over £10,000 for each working day.

A GREAT COMPANY.

The undertaking conducted under the title of the Carnegie Steel Company may be considered to have had its beginning in 1861, when the firm of Carnegie & Kloman was established. The active mind of Mr. Andrew Carnegie, the founder of the enterprise, assisted by his brother, the late Mr. Thomas Carnegie, and the well-directed efforts of Mr. Henry Phipps, jun., George Lander, and other partners, soon gave the business prestige and success; and in 1875, the firm of Carnegie, Kloman, & Co., was succeeded by that of Carnegie, Brothers, and Co. In 1881 the undertaking was formed into a limited company; and in 1886 it was again reconstructed as Carnegie, Phipps, & Co. In 1892 the various firms and companies in which Andrew Carnegie and his partners owned the controlling interests were consolidated under the style of the Carnegie Steel Company (Limited), with an aggregate paid-up capital of £5,000,000. An important addition was made by the amalgamation of the Frick Coke Company with the Carnegie Company, when the united capital was put at £12,000,000, Mr. Frick taking the position of general chairman of the consolidated company. During 1900 other reconstructions took place, greatly enlarging the scope of the firm's business, and the capital then stood at £25,000,000. At their numerous works the company manufactured steel rails, billets, structural shapes, armour-plates, boiler, ship, and tank plates, and were admitted to possess the most complete plants of their kinds in the world.

When, in the spring of 1901, the great amalgamation known as the American Steel Trust was effected, mainly through the instrumentality of Mr. J. Pierpont Morgan, the Carnegie enterprise was taken as the foundation, and to that mammoth undertaking seven other important steel concerns were tacked on, forming together such a gigantic organisation as the world had never before heard of. These seven companies comprised the Federal Steel Company, with a capitalisation of £40,000,000; the American Steel & Wire Company, with £18,000,000 capital; the National Tube Company, with £16,000,000; the National Steel Company, with nearly £12,000,000; the American Sheet Steel Company, with over £10,000,000; the American Tin Plate Company, £10,000,000; and the American Steel Hoop Company, with over £6,000,000. When all these various enterprises were combined with the original Carnegie undertaking, a vast company, with a capital of £229,000,000, was built up, and Mr. Carnegie retired with an assured income from capital and purchase-money left in the concern of from two to three million pounds.

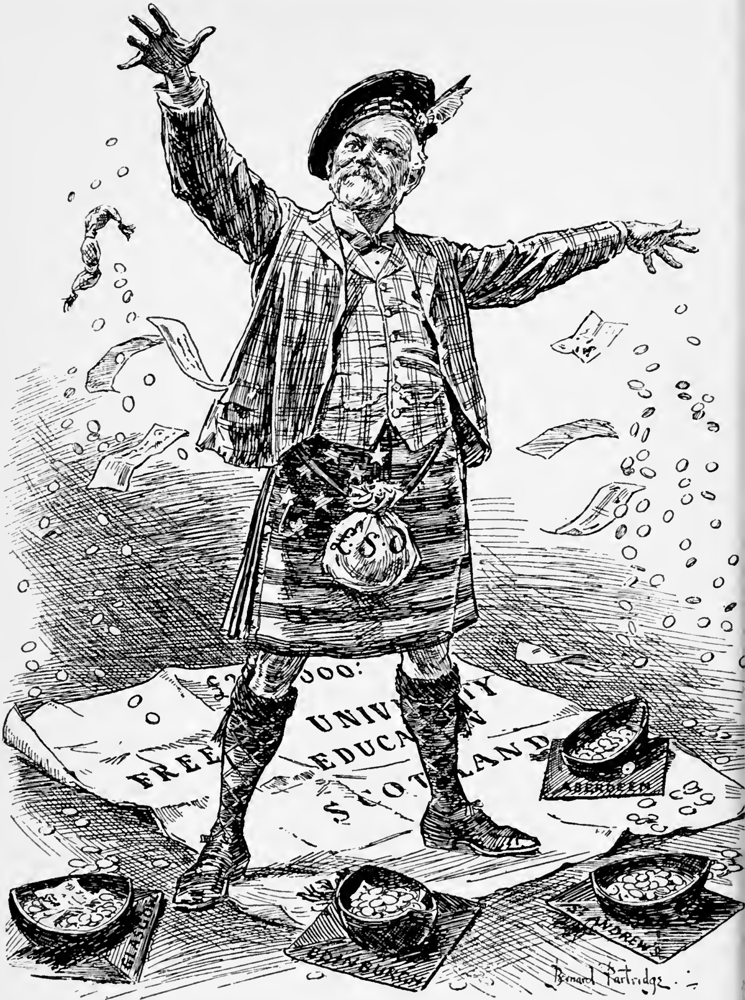
When Mr. Carnegie first entered the iron trade the demand for iron and steel products in the United States was largely ministered to by foreign manufacturers. To-day America leads the world, her total increase in exportation of metals and the manufactures thereof in the decade 1889–1898 having been 339 per cent. The part that Mr. Carnegie has played in this expansion has been pre-eminently that of the leading man —the star actor. It was given to him to build up within a single generation the greatest industrial establishment ever known. In a less time than it usually takes to lay the foundations of an industrial undertaking in England, Mr. Carnegie and his partners created a phenomenal business, and acquired wealth to an extent unparalleled in the history of the world's trade. In 1899 the Carnegie Steel Company made a profit of £4,000,000.

MR. CARNEGIE'S SECRET OF SUCCESS.

Much of the secret of the success of the Carnegie enterprise is due to the fact that Mr. Carnegie was not only possessed of a remarkable genius for business but was a born ruler of men. He himself says that the man who succeeds best in the world is he who knows how to avail himself of the labour of other men. It is this special quality, added to a keen judgment, that has enabled Mr. Carnegie to succeed so thoroughly. He, his partners, and their employés practically constituted an industrial commonwealth. The old spirit of business dictatorship and despotism had no existence in the Carnegie Steel Company's establishments. "My partners," says Mr. Carnegie, "are not only partners, but devoted friends, who never have a difference. I never have to exercise my power, and of this I am very proud. Nothing is done without a unanimous vote, and I am not even a manager or a director. I throw the responsibility on others, and allow them full swing." In the same way, the workpeople were honoured with the full trust of their superiors, and every inducement was offered, not only to interest them in the business, but to promote their general well-being. To get them to save money, every workman was allowed to deposit his savings with the firm, and was allowed the high rate of interest of six per cent. The firm also lent money to any of its workmen to buy a lot or build a house, the repayments being made by easy instalments. Thus the ties of association were closer in this mammoth undertaking, with its 27,000 workpeople, than in the majority of working establishments; and, with the exception of the strike at the Homestead Works a few years ago, there had never been any serious difference between the company and its employés.

SPLENDID PHILANTHROPIES.

Mr. Andrew Carnegie must indeed feel a proud man when he looks back upon the splendid achievements which stand to his credit in the rise and development of the Carnegie Steel Company; and the people who have benefited by his practical philanthropy in different parts of the world—the building and endowing of free libraries, and, by an open-handed charity, aiding every movement for the general good—are never


£ 000:
FREE
UNIV TY
EDUC N
SCOTLAND
£SD
ABERDEEN
GLASGOW
EDINBURGH
ST ANDREWS
Bernard Partridge

THE MACMILLION.

Drawn by Bernard Partridge

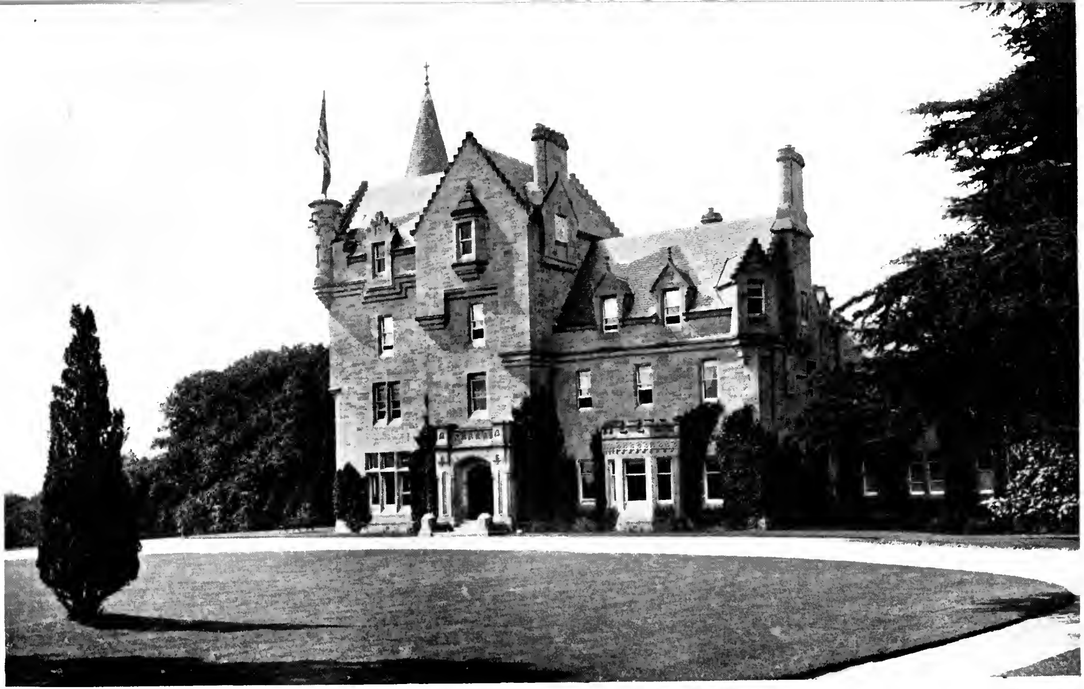
From "Punch." By permission of the Proprietors weary of proclaiming his greatness, both as an industrial leader and as a man of brain, heart, and intellect. In 1899, he gave away over £500,000 for free libraries in twenty-one localities in the United States, and gave over £100,000 for public purposes, making his record of munificence for America alone for the year over £600,000. In 1900 his gifts were still larger, and in the early part of 1901 he gave £1,000,000 for a library in New York, £100,000 for a library in Glasgow, and gave £1,000,000 for a fund for the workpeople of the old Carnegie Company. The still more recent founding of a fund of £2,000,000, which practically provides for the abolition of fees in the Scottish universities, is a master-stroke in the way of wise giving.

It has been said by certain Americans, who persist in seeing the humorous side of everything, that Mr. Carnegie has been effecting a "corner" in free libraries; but there is method in this as in everything else that Mr. Carnegie does, and there can be no denying that it is a form of philanthropy that is productive of immense good. Mr. Carnegie has told how his attention was drawn to this idea. When he began his career as a working boy in Alleghany City, a certain Colonel Anderson, who lived there, announced that he would be in his library every Saturday afternoon ready to lend books to working boys and men. He had about 400 volumes, but Mr. Carnegie doubts if ever so few books were put to better use. "Only he who has longed as I did," he says, "for Saturday to come, when the spring of knowledge could be opened anew to him, can understand what Colonel Anderson did for me and others of the boys of Alleghany City, several of whom have risen to eminence. It is no wonder that I resolved that, if surplus wealth ever came to me, I should use it in imitating my old benefactor." His gifts to the city of Pittsburgh have been very large. He built, at a cost of £200,000, a magnificent library, museum, concert-hall, and art gallery, all under one roof, endowing it also with another £200,000, and promising to expend in all £1,000,000 over this one institution. To the

Alleghany Free Library he has given £75,000; to the Braddock Free Library, £50,000; to the Johnstone Free Library, £10,000; and to the Fairfield (Iowa) Free Library, £8000. To Scotland and England he has hardly been less generous, having given £50,000 to the Edinburgh Free Library, and to the Free Library of his native town of Dunfermline, £18,000; while giving handsomely in aid of other libraries in the other principal towns and cities of his native country. To Birmingham, Keighley, and other places in England he has likewise been a liberal benefactor on similar lines.

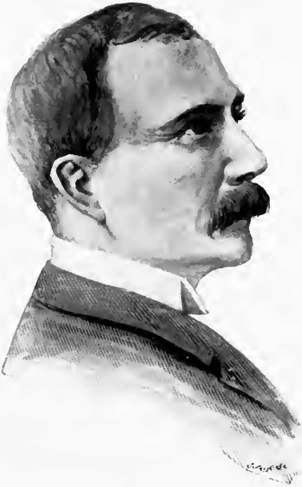
IRONMASTER AND AUTHOR.

Mr. Carnegie is the author of several books, which have had a wide circulation. Foremost amongst these is his justly famous "Triumphant Democracy," which attractively and eloquently sets forth the great achievements of his native country in recent times. In less serious vein are his "Notes of a Tour Around the World," "Our Coaching Trip," and "An American Four-in-Hand in Britain." A dozen years ago Mr. Carnegie wrote an article on "The Gospel of Wealth," which was first published in the *North American Review*, and afterwards reprinted, at the request of Mr. Gladstone, in the *Pall Mall Gazette.* This article attracted a good deal of notice, because of the novel views it expounded. In it Mr. Carnegie says: "There is no way of disposing of surplus wealth save by using it day by day for the general good. The day is not very far distant when the man who dies leaving behind him millions, which he was free to administer during his lifetime, will pass out of the world unhonoured, no matter to what use he leaves the dross which he cannot take with him." Not only will the world of industry be vastly better for Mr. Carnegie's splendid abilities as an industrial pioneer and chief, but the world at large will profit greatly by his munificence and noble deeds.



SKIBO CASTLE, SUTHERLANDSHIRE (N.E. FRONT)

THE HIGHLAND HOME OF ANDREW CARNEGIE



JOHN D. ROCKEFELLER

THE OIL KING

JOHN D. ROCKEFELLER

THE OIL KING

THERE are two methods of approaching the magic circle in which the Standard Oil Magnates sit enthroned. The easier way is to pause respectfully at the portal, and, with a friendly bow of homage to the money-bags, pass in and look only on the bright side of things. The other and more difficult way is the route that the aggressive critic takes, where all he gazes upon is dark, forbidding, underhand, selfish. But while neither path will lead the explorer to the inner heart of the wonderful labyrinth, the one view is as likely, or as little likely, to be correct as the other. *In medio tutissimus ibis*, however, and in our present survey of this gigantic undertaking and its rulers, we will endeavour to give a few pictures that shall, at all events, be free from distortion.

No great industry was ever so bolted and barred, covered over and shielded with secrecy, as this Standard Oil Trust has been; for, in spite of the fact that it has been nagged at by Congress and by State Legislatures, that it has been made the butt of eminent lawyers in criminal and civil trials, and that all sorts of special and general committees have attempted to investigate its affairs, the private history of this huge enterprise has still to be written. It has not been by taking the public into their confidence that the Rockefellers and Flaglers have succeeded in building up their splendid monopoly and achieving fabulous wealth on the ruins of a scattered, shattered, and chaotic industry. From first to last they have kept their own counsel, acquiring advantage after advantage with quiet but steady persistence, until to-day they are the richest body of men on the face of the earth. Yet how little is known of them as individuals.

DISTINCTLY MEAN MEN.

The truth is, there is very little to tell about them. Men do not make their millions by giving themselves to the popular gaze, but by hard, close, plodding, secret work, that will not admit of being neglected. Mr. H. M. Flagler, one of the chiefs in command of the Standard Oil Company, frankly acknowledges that he was "distinctly a mean man until he had made his first million." All these aspirants to millionaireship have to be "mean men," or they could not attain their ambition. They may be generous enough when they have achieved their wealth, but they have neither the disposition nor the time for outside liberality while their struggle is on. During the last few years Mr. J. D. Rockefeller has given over £1,500,000 to one institution, the Chicago University. He has been accused, indeed, of trying to work a "corner" in colleges, as in the past he has "cornered" oil, and as another multi-millionaire, Mr. Andrew Carnegie, is said to be effecting a "corner" in public libraries. Even the good deeds of the great rich are looked askance at by some, as if it were possible for an unworthy motive to underlie the act of giving millions for public objects. The best and worst of all that can be said on behalf of American trusts and American trust kings may be said in regard to the Standard Oil organisation.

Mr. John Davison Rockefeller has provided the brain and nerve of this great undertaking. To him is mainly due the credit of piloting the company into its present smooth waters. He it was who was able to see what vast possibilities were hidden away beneath the mass of business wreckage which confronted him when he first began to investigate the conditions of the American oil trade. He had had no special business training, and had seen but little of commercial life at this period. He was the man of the hour, nevertheless.

A HUMBLE START.

Nothing could well have been humbler than John D. Rockefeller's start in life. What could there have been in his home surroundings to give him any incentive for venturing into active industrial fields? His parents were poor, hard-working people, his father earning the family subsistence on a small farm in Tioga County, New York; and when young John was old enough to handle a hoe, he was let out to neighbouring farmers and worked early and late in the fields and barns. He patiently endured this drudgery until he was sixteen years of age, showing much strength of character in those trying days, and disciplining himself in the habits of thrift and frugality which, strengthening with advancing years, had considerable influence in the shaping of his after career. Whether young Rockefeller ever read the "Arabian Nights" in those days may be doubted, yet he was destined to realise in his own life such dazzling episodes as fiction has rarely depicted.

At the age of sixteen he abandoned farm-work and went to Cleveland, Ohio. Here, for the first time, he found himself in touch with the life and bustle of a great city. Referring to that time, he says, "I shall never forget those years. I began life in Cleveland as an office-boy, and learned a great deal about business methods while filling that position, but what benefited me most in going to Cleveland was the insight I gained as to what a great place the world really is. I had plenty of ambition then, and saw that if I wanted to accomplish anything I should have to work very, very hard indeed," and there is abundant evidence that he did work hard both then and afterwards. Not only was he diligent in business, but he employed most of his spare time in adding to the scant stock of learning which he had picked up at the school in his native village. His Cleveland schoolmaster, Mr. Andrew J. Freese, declares that John D. Rockefeller was one of the best boys he had. "He was always polite," he says, "but when the other boys threw hickory clubs at him or attempted any undue familiarity with him, he would stop smiling and sail into them." That habit of "sailing into" things, it will be seen, stuck to him in later life, and while yet in his early manhood he made the resolve that he would "sail into" business on his own account and be the servant of no man.

COUNTRY LADS AND "CITY FELLOWS."

The contrast between the old prosaic life on the country farm and the busy existence into which he had been plunged made a deep and lasting impression upon him. Yet he never regretted his early struggles, but always looked back upon them as having laid the foundation of his subsequent success. "To my mind," Mr. Rockefeller says, "there is something unfortunate in being born in a city. Most young men raised in New York and other large cities have not had the difficulties to encounter which come to us who are reared in the country. It is a noticeable fact that the country men are crowding out the city fellows who have wealthy fathers. They are willing to do more work and to go through more for the sake of winning success in the end. Sons of wealthy parents haven't the ghost of a show in comparison with the fellows who come from the country with the determination to do something in the world." Although this may not be altogether the language of the classics, there is much worldly wisdom in it, and it must be admitted that few city young men have had any sort of a "showing" in comparison with Mr. Rockefeller, the farmer's boy.

The first business enterprise upon which young Rockefeller may be said to have literally embarked on his own account was a deal in a raft of hoop poles. Having bought the raft, he steered it himself to a mill on the Ohio River, and sold his stock at a profit of £10. After this he, for a time, contented himself with simply looking around for other things to "sail into," and at last his attention was gradually drawn to the oil industry. To the ordinary business mind the prospect was in no way tempting. There had been so much wild speculation in petroleum that everything in connection with the trade was disorganised. The oil regions had become a pandemonium of confusion and distraction, and for a man to give out that he was about to connect himself with the oil business was to discredit himself in the eyes of his friends. Bankruptcy had overtaken many of the refineries, and the general situation was most unpromising. But John D. Rockefeller had the good fortune to penetrate the secret of the demoralisation that had come upon the trade. The only hope that remained was in the possibility of bringing about better methods of refining the crude oil. As things were, the so-called refined oil that was put upon the market was only a shade better than the raw product of the wells, and the world was overstocked with an article which in that condition was regarded as dangerous. Mr. Rockefeller concluded, therefore, that the only way of making money out of the oil business at this unfortunate juncture was to concentrate all his attention upon refining, and it was not long before he demonstrated to his own satisfaction that, under firm and intelligent control, it was still possible to make a success out of the existing ruins.

THE FIRST OIL WELLS.

The first oil well in Pennsylvania was opened on 28th August 1859. Four years earlier, Jonathan Watson had observed oil flowing from a spring, and had taken a bottle of it to a Hartford chemist for analysis, but as this authority pronounced the sample to be an artificial and not a natural product, the discoverer was thrown off the real scent for a time. Other "finds" of oil occurred soon afterwards, however, both in Pennsylvania and West Virginia, and in 1860 Mr. Charles Lockhart, of Pittsburgh—who was the first to make the production of the article a business—visited Europe with samples, and tried hard to make a market for the commodity, but met with but small encouragement. It was not until 1862 that he began to make shipments to Europe. In that year he sent 588,000 gallons of oil to Germany, but all that it realised was £400—less than the cost of transportation across the sea. A few years later, when the oil regions of America began to be "boomed" and became a sensation, the exportation of oil reached over 2,000,000 gallons a day. Then came the period of over-production and reckless speculation, and John D. Rockefeller came upon the scene, and transformed the whole business by gradually mastering every detail of it, and as gradually absorbing it and all its ramifications for the benefit of himself and his associates.

But petroleum was no new thing even in 1859, when the first discovery that it could be obtained by drilling was made in Pennsylvania. Europe and Asia had known it from the earliest times, and a specification of letters patent is extant showing that kerosene was extracted from cannel coal in England as far back as 1694. In more recent days petroleum was produced in almost every country of the world, so that it is not by priority of discovery or exclusive possession that America has obtained its pre-eminence in the handling of this article. It was just by the natural energy of American men that this success was won, and especially, as will be seen, by the genius and capacity displayed by Mr. J. D. Rockefeller and his clever companions of the Standard Oil combination.

Mr. Rockefeller, however, did not make a clear leap to this "coign of vantage." He climbed to it by easy stages. During his second year in Cleveland his earnings had been £5 a month, but as he contrived to save half that amount, he presently began to regard himself as something of a capitalist, and before he had attained the age of twenty-one he formed a partnership with a young man named Hewitt, and for five years thereafter they ran a produce business. So successful were they that at the end of that term young Rockefeller found that he had £2000 standing to his credit.

THE OIL-REFINING PROBLEM.

But during these five years Mr. Rockefeller had never lost sight of the oil-refining problem. He studied and experimented and thought, and in the end he arrived at a process of which he had great hopes. Many other investigators were engaged in the same direction all the time, but very little headway appeared to be made until Rockefeller took the matter up. He steadily held aloof from all investments while the oil fever was raging throughout the land, but let it run its excited course without losing his head. He was thus enabled at the opportune time to enter the breach. His first venture was to start an oil-refinery in conjunction with Samuel Andrews, and the success they met with was immediate and great. They had to run their works night and day, and still were unable to keep pace with the demand that their improved method of refining had created for their products. They now advanced by leaps and bounds. With every new accession of profit they erected additional refineries, and when it was seen that they were prosperous they had many offers of capital from the outside for extension. But Mr. Rockefeller exercised as sound a judgment in the selection of his working associates as in the administration of his general affairs. Many offered, but few were chosen. Of the latter, Mr. Henry M. Flagler was the most prominent. He placed not only a fair amount of capital at the disposal of the business, but brought to bear upon the enterprise a knowledge of accounts and finance that was invaluable.

From this beginning the Standard Oil Company gradually grew, though it was not until January 1870 that the business was considered of sufficient importance to justify the formation of a special corporation for its management. The capital of the new organisation was £200,000. Mr. John D. Rockefeller was president of the concern; his brother, William Rockefeller, was vice-president, and to Mr. Flagler was given the position of secretary and treasurer.

SWEEPING ASIDE OPPOSITION.

There were at that time scores of other refineries in the oil regions, running on old-fashioned lines with varying success, but the Standard Oil Company soon ran ahead of them all, showing a dash, a daring, and an originality in their business methods that had never before been dreamt of by the ancient oil men. The new refiners were denounced as unscrupulous, unfair, and all that, but the Standard Oil people pushed along regardless of criticism. They had become a corporation, and had no conscience. It has been said that the difference between the old oil men and the new was the difference that had existed between Napoleon and the Austrian generals, who, after the first Italian campaign, complained that they had been beaten contrary to the rules of war. The old-fashioned oil-refiners were beaten by methods contrary to all their former experience.

But there was merit as well as audacity in the methods introduced by the new company. They showed equal activity in the mechanical and chemical departments. Under their manipulation oils grew better, cheaper, and more uniform, and the demand grew apace until it became the boast of the new men that the oils of Pennsylvania shed their illuminating power over all the ends of the earth, lighting the streets of South American cities, the interiors of European cathedrals, the mosques of Asia, the shop windows of Jerusalem, and railway trains the world over.

Having solved the problem of improved production satisfactorily, the next question to be grasped and mastered was that of distribution. In the old days the oil had been conveyed from the wells to the streams in leaky barrels on rude waggons, rafts and flatboats being employed for the waterway transportation. Then railways were built, tank-cars were invented, and, finally, iron pipes were laid for bringing the oil from the wells. Numerous companies had been originally formed for the laying of these lines of pipes, but the Standard

Oil Company, in 1877, consolidated these various organisations under its own control as the United Pipe Lines, and the policy of absorption which has since characterised the operations of this famous trust was boldly entered upon. Meanwhile, the capital of the company had been increased to £700,000.

The difficulties of transportation from the refineries to the various markets had now to be faced; that is, the Standard Oil men had to get better advantages than their rivals if that were possible. As it was, they were at a positive disadvantage. Cleveland was west of the base of supplies, and still farther west of the principal market for domestic trade and the points of shipment for the export trade, although there were certain railway and water facilities that in some measure compensated for these drawbacks. Many, perhaps most, men would have been satisfied to have been placed on equal terms with other firms as regarded transportation rates. Not so Mr. John D. Rockefeller. He must have greater concessions than others, and he got them. How he managed this can only be conjectured. Some suggest bribery, some say it was simply his strong personality and persuasive tongue that did the business. Anyhow he obtained the concessions, and there ensued another succession of absorptions, which increased the magnitude of the company's operations wonderfully. Their rivals could stand up no longer against such an organisation. One by one they had to give up the struggle. They sold or leased their plants to the great monopolists, and as the years went by there was hardly a remnant of competition left for the Standard Oil men to battle with. They could quickly undersell and ruin any man who ventured to dispute the ground with them. In the matter of the Pipe Lines' absorption they met with a sturdy opposition at one point. The Columbia Conduit Company, specially formed for taking up the oil-pipe business, were in a fair way to obtain an Act authorising their project, but the Standard Oil Company, backed by the Pennsylvania Railway Company, succeeded in "lobbying" the Bill out of the House.

IN PRACTICAL CONTROL.

The company were now doing business on such an immense scale that agencies were set up in all the leading States for the sale of their products, and when the operations of such agencies became of sufficient importance, separate corporations were formed under the laws of the proper States, and thus in time the Standard Oil proprietors came into practical control of the entire petroleum trade of the country. Absorption upon absorption, advantage upon advantage, made them absolute monarchs of a great and growing industry. There was not a single point that they lost sight of in reducing everything connected with the business to the closest system, and of bringing every detail into the accounting towards economy and success. They located factories at the seaboard for the export trade, which rapidly became enormous; they became large stockholders in undertakings accessory to their own—railways, steamship lines, iron and steel enterprises, and what not. As an instance of one of the economisings effected, it may be mentioned that barrels which cost the trade about 9s. 5d. in 1872 are now manufactured by the Standard Company at 5s. each. As some 3,500,000 barrels are used per annum, there is in this item alone a saving of £800,000 per year. They also make their tin cans at 15 cents a can less than they could be made for in 1874. Thirty-six million of these cans are used per year, so that in that branch there is a saving of £1,080,000 annually. Refuse that was formerly used up as fuel is now made into paraffin wax and lubricating oils, and yields a big revenue. Add to this that the actual cost of refining has been reduced since 1872 some 66 per cent., and we get at some idea of the enormous economising that this great organisation has been able to bring about.

To-day the company declares dividends at the rate of £16,000,000 per year on its capital of £22,000,000. The company was formed into a trust in 1882, with a capital of £14,000,000; but ten years later, in 1892, the Supreme Court of Ohio declared trusts to be illegal, and the organisation was nominally dissolved; then it was carried on as a number of separate concerns for a while; more recently, however, it has been reconstituted under the laws of the State of New Jersey, and is, to all intents and purposes, still the Standard Oil Trust.

The five men who have for so many years been linked together in running the greatest industrial enterprise of the age are to-day all men of vast wealth. Mr. J. D. Rockefeller, the heart and soul of the undertaking, is said to be worth £50,000,000, his dividends from the Oil Trust and other sources amounting to probably £15,000,000 for 1900. Mr. W. D. Rockefeller is credited with a fortune of £20,000,000; Mr. J. H. Flagler with one of £10,000,000; Mr. H. M. Flagler with £7,000,000; and Mr. J. D. Archbold with a similar amount.

As has been said, however, the personality of these men does not loom very large in the eye of the public. They are known by their wealth and generous giving more than by their own individuality.

Mr. John D. Rockefeller is a man of the simplest habits. He has fine residences and large estates, but he has never been a man for display of any kind. He takes no interest in the things that usually engage the attention of rich men. He owns neither racehorses nor yachts, and never takes part in sports. His one hobby is education, and in support of that he gives away many millions a year. A man of strong religious convictions, he is a liberal giver to the Baptist church that he supports, and frequently stands up in church to lead in prayer. He rises early in the morning at his home, and after a light breakfast and an hour or so with his private secretary over his personal affairs, goes down to the Standard Oil Company's offices on Broadway, and takes the leading hand in managerial matters for a while. At noon he takes a simple lunch at his club, or at one of the local restaurants, bread and milk being all he requires. Later on in the day he takes walking exercise or drives, and lives about as quiet-going an existence as any ordinary citizen. He certainly does not go in for "high living."

In recent railway and other "deals," the moving spirit of which was Mr. J. Pierpont Morgan, Mr. Rockefeller is credited with having added £30,000,000 to his already enormous fortune. His is the invisible hand which at the proper time holds forth millions for the manipulation of the magicians of finance. He is unobtrusive, and to all appearance remains quietly in the background, yet his is the dominant power nearly always, passing like an unseen current of electricity across the entire enterprise, shaping and forcing it forward with a might that is resistless. While sensible of the power that he wields, he never permits his motives to stand out in undue prominence. He is ostentatious in nothing—not even in giving—but holds views regarding the duties and responsibilities of owners of great wealth which are in a measure in agreement with those held by Mr. Carnegie. At a Bible-class meeting in New York not long ago he said: "The pursuit of riches is not a wrong thing. On the contrary, gold is one of the mightiest agents for the doing of good, and though there are bad rich men, just as there are bad poor ones, I believe that most wealthy persons look upon their money as a sacred trust, which they hold for the good of their fellows."

Mr. William Rockefeller is also domestic in his tastes, unostentatious, and retiring. His weakness, if it be one, is horses, of which he possesses a fine stud, and he rides and drives frequently.

FLAGLER AND FLORIDA.

Mr. Henry M. Flagler has attracted some notice from the fact of his having invested many millions in the development of the pleasure resorts of Florida. The ground covered by his operations extends from Jacksonville to Biscayne Bay, nearly 400 miles. The Flagler railway connects the Flagler resorts and palaces, and is at the same time opening up in a marvellous way the resources of the entire region. The Flagler hotels—comprising the Ponce de Leon, the Alcazar, and the Cordova—all palaces of the most sumptuous order—are amongst the finest places of the kind in the world, and have made of St. Augustine and the surrounding country a second Riviera. The good that Mr. Flagler is doing by this princely outlay is enormous. It is too much for him to hope for returns on his lavish investments during his own lifetime, but future generations will appreciate his noble motives and honour him for them. The Ponce de Leon cost £300,000 as a building, and £50,000 in furnishing. When Mr. Flagler first went to Florida and proposed to invest in land, an old inhabitant said to him, "Florida's climate is worth a thousand dollars an acre; its soil not a d—d cent." But a different story would be told now in and around St. Augustine.

The Standard Oil men, however, will be famed mainly for the greatness that is reflected upon them by the organisation they have built up. It is the most stupendous landmark in the history of modern industry, and upon its existence the whole problem of trusts, their use and abuse, their good or evil, is centred. They have builded well and securely for themselves, whatsoever the general effect may be upon the industrial stability of their country.

PHILIP DANFORTH ARMOUR

THE MEAT KING OF AMERICA

CHICAGO has been styled the pantry of the world, and not without good reason, inasmuch as it is the chief centre of the world's meat supplies, sending forth from day to day enormous quantities of provisions to every habitable part of the globe. The stockyards of Chicago cover miles of ground, and comprise seventy-five big packing-houses—as they call the immense establishments in which the live animals are so dexterously converted into dead meat of various kinds—which under ordinary conditions can turn out every day provisions sufficient to feed an army of 32,000,000 soldiers.

A PROMPT DELIVERY.

A short time ago, when Russia was sending battalions to China, the War Minister to the Czar sent a cable message to the Armour Company at the Chicago stockyards, asking how soon they could ship five car loads of barrelled beef and pork to Russia, and the reply that was immediately despatched was, "Five cars of barrelled pork and beef are now on the way"; and if 500 car loads had been required it would have been just the same. Indeed, it was remarked at the time that it would be no particular trouble for the Chicago packers, by working a little overtime, to turn out sufficient to keep 75,000,000 men in fighting trim. "Czars, kings, and emperors may declare war," it was said, "but only the stockyards of Chicago are able to furnish the necessary supplies, without which the largest army in the world would be as powerless as a child."

It is thirty-four years since the Union Stockyards were

The Late PHILIP DANFORTH ARMOUR
THE MEAT KING OF AMERICA

From an Engraving by The American Biog. Pub. Co., *Chicago*

first opened. A few statistics of Chicago's live-stock traffic will give some idea of its present immensity. In 1899 the receipts of cattle, sheep, and hogs were 15,000,000 head, having a total valuation of £50,000,000, made up as follows: cattle, £26,000,000; calves, £400,000; hogs, £17,500,000; sheep, £3,500,000; leaving £2,600,000 as the value of the horses brought to market, Chicago being the greatest horse mart in the world, with sales approaching 120,000 head per year. The proportions of animals slaughtered at the stockyards in 1899 were: cattle, 2,514,000; hogs, 8,712,000; and sheep, 3,696,000.

THE CHICAGO STOCKYARDS.

The man who bore, until his death on the 8th of January 1901, the chief part in the building up of this gigantic industry was Philip Danforth Armour, to trace whose career is to follow the history of the development of the Chicago stockyards, which have for more than three decades formed the solid background to the prosperity of the metropolis of the Mid-West.

Philip Danforth Armour was at the head of a business whose ramifications extend to every conceivable product connected with cattle, hogs, and sheep, the value of the firm's output being over £20,000,000 annually. About £3,000,000 is invested in the various plants, and the capital approximates £6,000,000. From 25,000 to 30,000 people find steady employment in these vast interests—the annual wage-roll ranging between £4,000,000 and £5,000,000. And the man who was the leading figure in these tremendous enterprises was but a poor farmer boy, and worked in the fields until he was twenty years of age.

P. D. Armour was born in 1832, in Madison County, New York State, on a farm which was tilled by his father. As soon as he was old enough to work in the fields he had to fall in with the rest of the family, and a very diligent assistant he proved. So matters went on in the same jog-trot, humdrum fashion year in and year out. He was regarded as a promising agriculturist who would be an honour to the locality in which he was "raised," and there was every reason to suppose that he meant to stick to farming for the rest of his life.

DREAM OF THE GOLDEN WEST.

In 1852, however, when the country was thrown into a fever of excitement by the news of the great gold discoveries in California, young Armour felt the longing for riches stir his blood, and while he plied his hoe in the fields he began to dream of the golden West, towards which he felt irresistibly drawn. The farm lost its interest to him, and his daily labour became irksome; so, like thousands of other farm boys, he threw down the hoe, and started away hopefully for the goldfields. It was a stupendous undertaking in those days to "go West." It required a man to have a little money to begin with, for much of the journey was through lands beyond railways, where the travelling had to be done by coach or on horseback, with risks of interruption on the part of Indians or robbers; and it required him to have health, courage, and determination, or he would be in danger of falling by the way. Philip Armour was not inefficiently equipped in any of these matters, except, perhaps, in regard to money, of which he had just sufficient to see him through the journey, and that was all.

Slowness of transit proved an advantage to Mr. Armour, enabling him to observe what was being done at the various points at which he stopped. He took note, not only of what the growing cities of the West were achieving in aid of the sum of national progress, but he read the secrets of the vacant places, saw the vast extent of their almost untouched resources, and employed his imagination in working out the problems of their development. Once or twice he was almost tempted to halt and say, "Here will I pitch my tent," but was unable wholly to throw off the gold fever that had fastened upon him; so he pursued his adventurous way and finally reached the realm of the golden quest. How strenuously he worked and struggled in the Californian pandemonium, what hardships he endured, what alternations of hope and fear beset him, are incidents that need not be described. Suffice it that, although California was on the whole a disappointment to him, he managed to drag out of the earth such an amount of gold as provided him with a small capital. He was not one of the lucky ones, however, and rather than hang on and become a failure, as so many did, he packed up and made his way back to the old homestead in New York State, where he was received with open arms by his parents as one returning from a strange land to pass the rest of his days under the happier influences of an affectionate and comfortable home circle. But Philip Armour had seen other things in the West that had impressed him far more than the goldfields. He had seen a vast region, rich, fertile, and beautiful, waiting for new settlers to come and stir it into active life, and night and day he thought of the work there was to be done there, and the money there was to be earned by men who could go out and take a firm and friendly hand in the opening up of the great harvest grounds of the Western half of the continent. His return journey had been more leisurely even than his outward journey, and had given him opportunities of confirming his first impressions. For his parents' sake he struggled for a time against his inclinations, but all to no purpose, and, in 1856, he set out for Milwaukee, taking such savings as remained to him, and relinquished a farmer's life for ever.

VALUABLE FARMING EXPERIENCE.

As it happened, his experience on the old farm at home was of considerable value to him in his after career. It had made him a good judge of farm animals and farm products, and had given him a sound knowledge of agricultural values of all kinds. On taking up his residence in Milwaukee, which had seemed to him the likeliest place for him to settle in of any in the Mid-West, it being then bigger and more important than Chicago, he first of all established himself in a general commission business in partnership with F. B. Miles. Here he got into closer touch with the needs and opportunities of the Western land, and in his business relations with the farmers was able to acquire information about everything pertaining to the handling of agricultural animals—cattle, horses, sheep, and hogs—and felt like a man who had drifted into the exact surroundings which best harmonised with his aspirations.

Mr. Armour soon afterwards went into the packing business with John Plankinton, and from that day he continued to be a packer, extending his enterprise year by year until it became, as it still is, the greatest enterprise of its kind in the world. But before he had been in the packing business very long, Mr. Armour had perceived that Chicago was destined one day to become the chief centre of the meat-packing—or, at all events, of the pork-packing industry. Trade centres were being shifted with the rapid development of Western prosperity. For many years Cincinnati had been the headquarters of this business, with St. Louis following at its heels; then the trade gravitated towards Chicago, which kept up such a hot chase for the leadership that in 1862 it passed ahead of its rivals, since which time it has put other cities out of the running. To-day Cincinnati does not count in the packing business, and St. Louis has fallen so woefully behind that her entire receipts for cattle, sheep, and hogs do not amount to a quarter of those of Chicago. Kansas City now comes next to Chicago—a long way behind, it is true, but advancing. Omaha comes third.

ABLE MANAGERS.

But what a mighty work this of Mr. Armour's was in originating and steadily building up this meat-packing enterprise of his! It must have been a surprise to himself sometimes, when he came to see by what leaps and bounds he made it jump, but he was the man for the work and he did it thoroughly. He saw that it was worthy of all his energy and brain and strength, and he gave his life to the task of directing it. There was no detail too small for him to attend to, no undertaking too great for him to grapple with. The business, however, soon outgrew the possibility of being managed by him unaided. In his partner, Mr. Plankinton, he had an able colleague, but as department after department was added to the original enterprise, other sub-leaders had to be imported into the business. One of the secrets of the success of the Armour enterprise was Mr. Armour's shrewdness in selecting men for the different managerial posts. His motto was, "Give the best and get the best." There are men in the Armour establishments receiving salaries as high as £5000 a year, as much as an English Judge or Cabinet Minister, but, as Mr. Armour said, "Good things are not cheap," and he considered it wise economy to pay a man big wages for exceptionally responsible work that he did well rather than to pay a small salary for indifferent services. So, with a well-selected, well-paid staff of captains of departments, with sub-captains over fifties, and sub-sub-captains over tens, and himself as the commander-in-chief giving the orders of the day to all, he secured a thoroughness of organisation that worked admirably. And not only was Mr. Armour fortunate in having all the sub-divisions of his far-spreading enterprise under efficient generalship, but he was ably assisted in the chief command by his two sons, Philip D. Armour, junior, and J. Ogden Armour, who assumed responsible positions as they came of age, and did much to help forward the organisation.

EARLY BUSINESS HABITS.

In the early days of the packing enterprise Mr. Armour displayed nothing short of business genius. Every morning at seven o'clock he was at work, and no hour at night was too late for him when there was business to be done. In the market, buying his thousands of head of cattle, sheep, and hogs, his towering figure used to be the most noticeable in the crowd of eager bidders, and there, as elsewhere, he soon won a commanding position. His judgment was never at fault. He could see at a glance what a herd, or a flock, or a drove was worth, and knew the exact sum it would pay him to offer. He was as quick of decision as he was firm of purpose, and being always a man of his word, about whom there could be no financial misgivings, the men of the flocks and herds were glad to do business with him. And when it came, as it soon did, to his having to depute managerial duties to others, he proved to be as great an administrator as he was a man of business. As he had inherited no business traditions he had none to wrestle with, but made rules of service for himself from which he suffered no deviation. His enterprise was to him in the nature of an empire, not a democracy; his personal sway was absolute.

Wonderful Varieties.

From being originally engaged simply in the pork-packing trade, Mr. Armour added other undertakings to his enterprise as circumstances and opportunities favoured, until he gradually gathered within his operations every other branch of the meat-packing industry, and to-day there is no article of consumption composed of the flesh of the cow, the sheep, or the pig that the firm does not deal in, from soups and meat extracts and essences to the meat in its raw state as supplied to the butchers. It would be like giving a grocer's catalogue to enumerate the numerous eatable commodities that it is the business of the Armour Company to distribute over the face of the earth from day to day. The ordinary retail purchaser of an Armour ham or an Armour can of tongue or sliced beef cannot have the faintest idea of the vast organisation which has placed the dainty article within his reach. He may buy the Armour delicacies in London or Calcutta, in St. Petersburg or Yokohama, but he will never dream of the wholesale slaughter of animals which daily goes on in the Armour killing-houses at the Chicago stockyards that he and other consumers may be supplied with the Armour brand of goods.

What can he possibly know of the fact that in those houses of speedy despatch from 200 to 500 cattle an hour are killed, dressed, inspected, and sent to the refrigerators? What conception can he have of the appearance of the huge hog departments, with their "gutters'" benches and their "splitters'" benches, where the porcine carcases are rushed through all the stages of manipulation with a lightning-like rapidity that defies description, and is perhaps not too agreeable to dwell upon—being transformed in a very few minutes from live animals to dead meats, jointed, dressed, and treated according to requirements? The stranger who sees these things for the first time is bewildered—the departments are of such startling magnitude, and such vast numbers are seen at work, all working like clockwork, only much faster, and aided in almost every evolution by machinery. What a contrast between this swift slaughter of bovine, fleecy, and grunting victims on the Armour sacrificial altar, all accomplished with such marvellous mechanical precision and deftness, and the ancient, homely methods of pig immolation and curing which formerly prevailed in rural districts! The contrast is as great as between a telegraphic message of to-day and the postal service of a century ago.

At the Chicago stockyards, the Armours have four acres of space allotted to the canned meat division alone, their whole plant occupying 52 acres. The machines of every department are operated by electricity, and there is a railway for the transporting of goods between different parts of the works, which extends over three miles of track. Everything required in the business is manufactured or prepared in the various factories, and to follow the meat from the killing process to its ultimate stage of preparation for the market is to go on a pilgrimage. There are 800 girls employed in painting and labelling cans alone by Armour & Co., and two other firms of packers—Nelson, Morris, & Co., and Libby, McNeill, and Libby.

264903

The Man at the Wheel.

As the packing trade is run in these days there was no necessity for Mr. Armour to be in daily attendance at the stockyards. From his little room in the Armour Company's bustling offices in the Home Insurance Building in the city, with his private secretary and his staff of clerks around him, and the telegraphic and telephonic instruments at hand ready to put him in communication with every link of his great business chain, he was practically in touch with every department, however distant, as well as with the whole of the commercial world. When in Chicago, Mr. Armour was at his desk every morning at seven o'clock, and had put before him reports and summaries showing the exact condition of the working of the enterprise in all its details. The financial news of the money centres of the world were ready for him on his arrival each morning, for by the time the sun reaches Chicago on its daily round the capitals of Europe have been under its influence fully six hours, and have accomplished half a day's work—the result being that Mr. Armour knew what had happened in London, Paris, or Berlin, and how their money markets were going before he needed to set about looking at his local affairs. This was a great advantage to a man like Mr. Armour, who, in addition to being the leading meat-packer in the world, was also one of America's chief capitalists and financiers—his investments covering an immense field and including large holdings in railway, steamship, and other speculations out of which he probably made as much revenue as out of his packing business. He was reported to be the largest owner of grain elevators in America, and was proprietor of a glue factory which turns out over 7,000,000 tons of product every year.

"Keep Your Mouth Shut!"

Mr. Armour went about these things in a quiet, methodical way, making no boast of his successes, but sticking to his various undertakings with a tenacity and a determination which bore splendid fruit. For a man with such large interests at stake, he was singularly little in evidence, and always avoided putting his personality before the public. To get him to talk of his achievements was next to impossible. Indeed, when a certain inquisitive member of the fourth estate once asked him to reveal in as few words as possible how he had managed to be so successful in his various enterprises, he made the laconic reply, "By keeping my mouth shut." It was his business that did the speaking, and a very telling kind of eloquence it has been.

Until within the last two years Mr. Armour never sought recreation of any kind. He stuck to his business year in and year out, and it is said that until last year (1900) he had never even gone out of his way to witness a Chicago parade. He simply said he always was too busy to be able to spare time to go to the window to look out upon the marching men. His chief hobby was the Armour Institute, which is a handsome, well-equipped training college, affording accommodation for 600 to 1000 pupils. This and the Armour Mission were built, furnished, and endowed at an enormous cost, and he showed a constant solicitude in their progress, visiting them almost daily when he was in Chicago. Another hobby was a little farm that he had in Michigan, on which he kept a number of pigs for experimenting purposes, his latest treatment being to fatten them on an acorn diet, which, as a harking back to primitive methods, is not without its significance.

CRUSHING THE WHEAT "CORNER."

Once or twice Mr. Armour rendered special service to the trading community of Chicago by coming to its rescue in times of panic and peril. It was Mr. Armour, it will be recollected, who finally crushed Mr. Joseph Leiter's famous "corner" in wheat a year or two ago; and during the panic of 1893 he stood up boldly and was a steadying influence when almost every one else lost his head. During the days of the panic there was a run on the Illinois Trust and Savings Bank, of which his eldest son was a director, and Mr. Armour took upon himself the difficult task of allaying public misgiving. The methods he adopted were characteristic of the man. Stepping quietly out of his office, but a block away, he edged in among the crowd that was excitedly clamouring in front of the bank, eager to make their way in and withdraw their deposits, and, standing on one of the steps, head and shoulders above most of the people, for he was a big and massive man, he earnestly appealed to them, for the sake of the credit of the city, to leave their money where it was, pledging his own credit that their deposits were in no danger. He remained in the crowded street all the day, and personally persuaded thousands of depositors to return to their homes, and when the bank closed he called a meeting of the prominent men of the city and induced them to join in his efforts to quiet the public fears. More than that, he cabled to London, and bought half a million dollars in gold. Then the next morning he took up his stand again in front of the bank, and succeeded in getting scores of anxious depositors to turn back, and in the end his personal influence, and the good impression created by his large purchase of gold, restored public confidence and saved the bank from further trouble. Mr. Armour, as became a man of gigantic dealings and Napoleonic strokes of finance, had always a large reserve of ready cash on hand, available for emergencies.

CHICAGO TO-DAY.

Mr. Armour saw Chicago grow from a comparatively small and unimportant city to be the second city of the Republic, and he has been one of the chief agents in the building up of Chicago's most prominent industry. When he first started his modest business of pork-packing, the live-stock trade of Chicago, such as it was, was scattered around among four or five small markets located in different parts of the city. As soon as it was made manifest, however, that there were men of energy and leading like Mr. Armour, who were becoming of sufficient importance to have their convenience ministered to in regard to the buying and selling of stock, the markets were consolidated into one undertaking, and the Union stockyards were established, with prompt and adequate facilities for dealing with large batches of stock.

To-day Chicago sells and slaughters a larger number of animals than the next five or six markets in the country combined. She has hundreds of acres of cold-storage space, and her many thousands of refrigerator cars are constantly employed carrying meat products to all parts of the United States and to the seaboard for exportation. In a single day as many as 26,000 cattle, 29,000 hogs, and 27,000 sheep, or a total of over 80,000 animals will arrive in the stockyards. The 26,000 cattle would arrive in 1313 cars, and the animals would weigh 30,407,000 lbs., representing dressed the enormous total of 18,000,000 lbs., or 9000 tons of beef furnished by Chicago in one day. The sheep would weigh 2,334,000 lbs., and would make 584 tons of mutton, while the hogs would yield 2616 tons of pork. The cattle, sheep, and hogs combined would give a grand total of 12,000 tons of dressed meat, distributed amongst the consumers of the world in one day by this single live-stock market. The meat would fill a refrigerator train over eight miles long, and the animals as received would make a train of 1887 cars, or a solid train of 14¼ miles, or a solid procession of animals, in single file, extending over a distance of eighty miles. That the Armour Company are the leading handlers of this mighty daily influx and efflux of live-stock gives them a position in the great work of provisioning the world that is bewildering to contemplate.

The head of this great business concern is now Mr. J. Ogden Armour.

W. A. CLARK

THE COPPER KING OF MONTANA

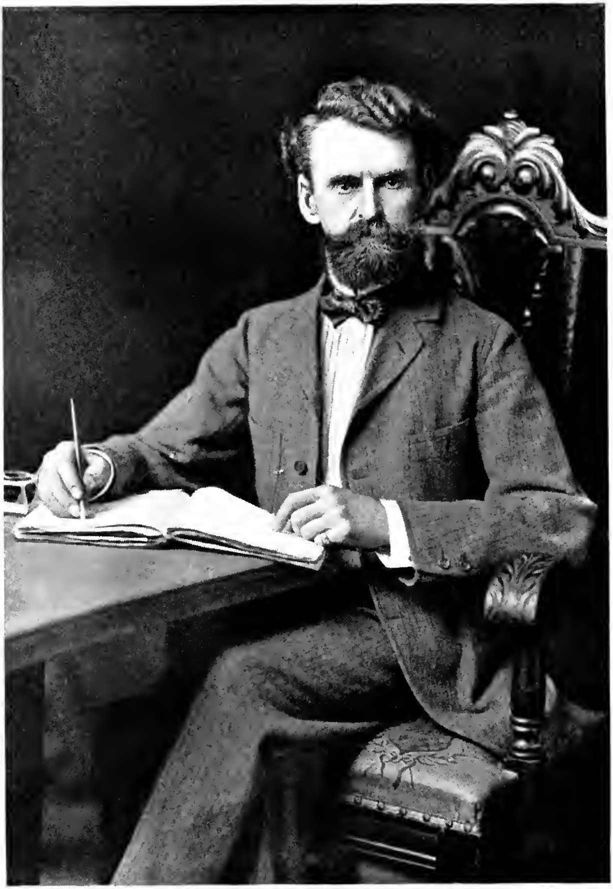
THE wealth of W. A. Clark, the Copper King of Montana, is estimated at anything from £8,000,000 up to fabulous figures, some Montana people maintaining that he has an income of £6000 a day. At any rate he is enormously rich, and, like most American millionaires, began the battle of life with nothing.

Born on a Pennsylvania farm sixty-one years ago, and working on a farm until he was twenty-four years of age, there was little in his early career to indicate that he would ultimately become one of the world's richest men. But most American boys grow up with a keen appreciation of the value and desirability of dollars, and if opportunities of accumulating them do not come their way, many of them venture forth into places remote in search of them.

William Andrew Clark was of this class. As a lad he worked nine months of the year on the farm, and during the other three months—in the winter time—went to school. In 1856, the family moved to Iowa, and settled on a prairie farm. The better school facilities here enabled young Clark to acquire a fair education, and three years later, encouraged by the glowing reports that reached him of the resources and opportunities of the West, he started out in the direction of the setting sun. In 1859–60 he was teaching school in Missouri, and in 1862 he crossed the great plains, driving a team to South Park, Colorado.

EARLY HARDSHIPS.

That winter he worked in the quartz mines in Central City. The next year the news of the gold discoveries at



WILLIAM ANDREW CLARK

THE COPPER KING OF MONTANA

From a Portrait by MARCEAU, *Los Angeles*

Bannock, Montana, reached Colorado, and Mr. Clark was amongst the first to set out for the new El Dorado. After sixty-five days of hard travel with an ox-team he arrived at Bannock, just in time to join a stampede to Horse Prairie. Here he secured a claim which he worked during this and the following season, clearing about £300 the first summer. This sum formed the basis of his future operations in Montana. With this capital he laid the foundation of his after wealth, and began those ventures which he followed up with so much energy and success.

The opportunities were there, and he saw them. He might have gone on digging in the earth, and taking his chance of finding gold, but he thought he saw a steadier and surer way to prosperity than that; so he gave up working in the placers, and set himself to making money by ministering to the material wants of the community in which he found himself.

His first venture in this line was to bring in a load of provisions from Salt Lake City, entailing a long and arduous journey there and back, and no little risk; but he was successful in landing his stock, and in the winter of 1863–64 sold it readily at amazing prices. He repeated the experiment on a larger scale the ensuing winter, making Virginia City, then rapidly developing, his market. Alive to every fresh opening, in the spring of 1865 he established a general store in Blackpool City, then a new and bustling mining camp, and after the first profitable yield sold the store and embarked upon another enterprise.

BAKING-POWDER BILLY.

He had noticed that the miners were badly off for tobacco, and were ready to pay almost any price for the article, so he started out on horseback to Boise City, Idaho, where he purchased several thousand pounds of the weed at 6s. a pound. Securing a team he drove to Helena with his precious cargo, for which he found ready purchasers at 20s. and 24s. a pound. In this way he soon became possessed of an increased capital, and in February 1866, joined in the rush to Elk Creek, where he set up a store and sold goods to the miners at big profits. When his stock was exhausted he made a journey, mostly on horseback, to the Pacific Coast, and at San Francisco laid in another large stock of goods, with which he travelled back to Montana and disposed of to the customary advantage. One of his most characteristic "deals" in those days, however, was his effecting a "corner" in baking powder, which caused him for a long time to be known as "Baking-Powder Billy."

By this time Mr. Clark was a man of considerable means, and it became necessary for him to decide whether he would continue in the ways of ordinary merchandise or strike out in a more ambitious direction. He had sufficient confidence in himself to choose the latter course. He spent the winter of 1866–67 in visiting the principal cities of the Union, observing what was going on and taking note of anything that he might afterwards turn to advantage. On his return to Montana he made propositions to the Government, and was soon afterwards installed as mail contractor on the "Star" route between Missoula and Walla Walla, a distance of 400 miles, where his energy and bustling qualities had ample scope for display, and he made a success of mail-carrying as he did of most other things.

But greater successes awaited him. In the autumn of 1868 Mr. Clark made a trip to New York, and, meeting with Mr. R. W. Donnell, formed a partnership arrangement with that gentleman, which resulted in their engaging together in the wholesale mercantile and banking business in Montana. They shipped to Montana a large stock of general merchandise *viâ* the Missouri River in the spring of 1869, and later on extended their connection so as to embrace all the leading cities of the Territory. In 1870 Mr. S. E. Larabie was admitted a partner, and before long the firm ceased their general mercantile operations, and devoted themselves exclusively to banking. Mr. Clark now became a man of great influence as the leading banker of the locality, and for a few years banking satisfied his ambition, for it was immensely profitable in that growing region, and gave him a position. Ultimately the banking business was joined by Mr. Clark's brother, and the other partners either retired or were bought out, and the banking house of W. A. Clark & Brother, Butte City, Montana, grew to be, and still is, one of the strongest institutions of the kind in Western America.

TAKES UP MINING VENTURES.

This might have sufficed for many men, but the money-making instinct was still strongly manifest in the former farmer's boy, and he resolved upon conquering a foremost place in the mining world, as he had previously won his positions in the business and banking spheres. It was not as a mere investor, however, that he meant to figure. He had higher aims than that. For years he had watched the development of the Montana mines with a quiet but keen interest, and had a better idea of the possibilities of the region in the way of mineral treasures than most experts. But, though a bold and courageous speculator, he had never shown lack of caution, and was not disposed to simply take his chances now. If he ventured into mining enterprises it should be with full knowledge, not in ignorance. So he spent the winter of 1872–73 at the School of Mines, Columbia College, New York, taking a course in practical assaying and analysis, with a general outline of mineralogy, gaining a knowledge that subsequently served him well in the extensive mining, milling, and smelting operations which he embarked upon. He acquired, in whole or in part, the Original, Colusa, Mountain Chief, Gambetta, and other mines, nearly all of which proved to be immensely rich. From this time onward the part he played in developing the prosperity of the Treasure State, and adding to his own wealth, was one of great conspicuity. He led, and others followed. He was the first to give attention to the quartz prospects of Butte; the first stamp mill in Butte was erected by his financial help; the first smelter of consequence in

Butte was put up by a company organised by him; he established the first water system in Butte; also the first electric light plant.

"CLARK'S LUCK."

One of Mr. Clark's mining properties cost him £30,000, but in six months it paid him £300,000, and is still paying. So fortunate were his mining ventures, indeed, that the term, "Clark luck," became proverbial in Montana. Year after year Mr. Clark's holdings in silver and copper mines went on increasing, and not only did he become the chief mine-owner in Montana, but went further afield in quest of investments of this nature, being at the present time possessed of valuable mines in Idaho and Arizona. The United Verde Copper Company, owned by him, is probably the richest and most extensive copper mine in the world, not excepting the Anaconda, Mountain View, or any of the big properties of Butte. Mr. Clark has constructed a railway to this mine, connecting with the Santa Fè system, which is a marvel of engineering, and for its length—twenty-six miles—one of the most costly in the West. There are immense smelting and refining plants at this mine, whose output of copper is only limited by the demands of the world's markets.

Montana is proud of such a distinguished citizen as Mr. Clark, and for the last twenty years or more has showered many honours upon him; for although he is first and foremost a man of business, giving his various enterprises a close personal attention, he has never been reluctant to respond to any call of public duty from his State or the Democratic party, to which he has always been attached. It is possible—even probable—that he would have been a happier man had he kept out of public life and reserved his energies for his own affairs, for American politics mean turbulence and trial and worry; but taking a deep interest in public matters, as he did, he considered it his duty to devote a portion of his time to the fulfilment of the higher functions of citizenship. So far back as the Centennial Exhibition at Philadelphia in 1876, he was chosen as State Orator to represent Montana, and on that occasion performed good service by making known the magnificent resources of the territory. In 1877 he was elected Grand Master of the Masonic Lodge of Montana, and in 1878, during the Nez Perce invasion, received the commission of major, and led the Butte battalion to the front against Chief Joseph.

Six years later—in 1884—he was elected a delegate to the first Constitutional Convention, becoming president of that body, and in the same year he was appointed one of the Commissioners of the New Orleans Cotton Exhibition, spending several months in the Louisiana capital in the interests of Montana. Mr. Clark received the Democratic nomination for delegate to Congress in 1888, but was defeated; and in the following year, when Montana was admitted to the Union, and a second Constitutional Convention was necessary, he was again elected a member of that body, being, as before, chosen for presiding officer. Later on, in 1890, when the first Legislative Assembly was formed at Helena, and two United States senators had to be elected, Mr. Clark was one of the nominees, but the Republicans carried their men, and Mr. Clark was unsuccessful. In 1893 he was once more a candidate for senatorship, and a contest, lasting through the entire session of sixty days, took place. Party and factional strife ran so high that the session had to be closed without a senator being elected.

A BITTER FEUD.

Mr. Clark had a powerful enemy in Marcus Daly, copper king and political "boss" of the State, and to this more than any other cause he owed his successive defeats. Their feud started over a mining claim. Daly built a flume for a mine. Clark owned the water power and supply, and compelled Daly to pay £20,000 cash before he could get a drop of water. They continued their fight until Daly's death in November last, and it was a battle of millions. It mattered not to Daly that Clark was on his own side in politics. Clark had got the better of

Daly in the water-supply incident, and Daly was as unforgiving as a Corsican. Both men were tremendously rich, and their money could command plenty of supporters ready to fight through thick and thin for their respective leaders. For over ten years these wealthy mine-owners were pitted against each other, and the conflict was not concluded until the death of one of them.

In January 1899 Mr. Clark, with a persistence that nothing could daunt, once again stood before the Montana Legislature as a candidate for United States senatorship, and again the Daly-Clark factions deadlocked the Assembly. Mr. Clark finally won, however, with the aid of eleven Republican and four silver Republican votes. Then the Dalyites arose in protest, and charged Mr. Clark with having spent £100,000 in securing his majority. Such a hubbub was raised that a legislative inquiry was instituted, also a grand-jury investigation, a Supreme Court trial, and finally the Senate Committee's proceedings. The Dalyites were not to be appeased at any price. How much of truth and how much of falsity there was in the evidence brought forward will never be determined. There was plenty of hard swearing on both sides. One State senator averred that Mr. Clark's son had handed him £6000 to purchase three votes with, and Mr. Clark's agent, John B. Wellcome, admitted that he had said that "every man who voted for Clark was to be paid, and the man who wasn't paid was a fool." Daly appeared in person and testified against Clark, and Clark denied everything except that he had set apart large sums for "campaign expenses," and had trusted his son to see them properly applied. The result was that Mr. Clark was not then permitted to take his seat at Washington as United States senator. Marcus Daly had triumphed again.

POLITICAL STRIFE.

The fight of the Montana millionaires for political supremacy, however, still continued. At the time of the Democratic

Convention in Kansas City last July, when the candidate and campaign for the presidency were fixed upon, both Clark and Daly were strongly represented. The former appeared in person, but Mr. Daly was in Europe, his interests being looked after by the men who had acted for him and with him in Montana. It was asserted that Mr. Clark intended contributing a million dollars to the campaign fund, though his friends denied this. What Daly promised was not stated. That both "forked out" handsomely goes without saying. When the National Committee came to vote upon the claims of the two blustering factions, whose banners, bands, and supporters were the sensation of the Convention, the potency of Mr. Clark or his millions was the more effective, he and his followers being seated in spite of the protests of the rival millionaire's satellites. As for Mr. Daly, it was only with his last breath that he relinquished his animosity to Mr. Clark. The news of the latter's success had to be kept from Mr. Daly on his death-bed, in order as far as possible to insure a happy ending to his career.

But it is as one of the copper kings of Montana, not as a politician, that Mr. Clark will be longest remembered. As a sample of the brave, energetic, resourceful, self-made men who within the last quarter of a century have founded a new empire teeming with riches in the heart of the Rocky Mountains, Mr. Clark stands out in marked prominence. He has accumulated wealth without arrogance, and is one of the few whose original geniality survives through every rise of fortune. Public-spirited and patriotic to a degree, it was natural that he should aspire to political honours, and but for the personal jealousies which his activity aroused there could have been no question as to his eligibility; but when money is thrown into one end of the political scale it has also to be thrown into the other. Above and beyond all this turmoil of personal politics, Mr. Clark is a man that America may well be proud of, for his State and the greatest mining camp on earth are largely things of his creation and owe to him a large measure of their prosperity.

CHARLES M. SCHWAB

AMERICA'S NEW STEEL KING

"THE old order changeth, giving place to new." One famous steel king abdicates, and another steel king takes his place. "Long live the king!" Such would have been the echoing cry throughout America's far-spreading and powerful realm of steel and iron if the feelings of those immediately interested could have been voiced when Andrew Carnegie resigned his kingship and Charles M. Schwab was set up in his stead. It represented the supremest achievement in the history of industry. The interests involved, the amount at stake, the army of workers it affected, and the men associated with it, made it almost a national affair. Figures of such proportions as had never been heard of before in connection with trade were bruited about, and the men of Wall Street watched with breathless eagerness the movements of the negotiator-in-chief, J. Pierpont Morgan, while he struggled to get the main steel interests of the Republic into line and alliance with each other. Many thought the task was an impossible one, but in America, while the trust mania is at its height, transactions of gigantic moment are capable of being carried through when princes of finance and captains of industry put their heads together. And Mr. Morgan succeeded, not because he knew anything much about the steel trade, or any other trade, from practical experience, but just by way of an experiment in finance, and with the view, as he himself confessed, of acquiring a dominating influence in the steel trade of the world. Morgan manipulated, and the heads of the eight largest steel undertakings in America submitted themselves, at a price, to his moulding. The result was that Andrew Carnegie gave up his kingship,

JAY GOULD

CHARLES M. SCHWAB

PRESIDENT OF THE UNITED STATES STEEL CORPORATION,
NEW JERSEY

GEORGE J. GOULD

going into retirement with the handsome solatium of £40,000,000 as payment for the rights he relinquished, and Charles M. Schwab succeeded to the position, having voted to him, it is averred, the astounding yearly salary of £160,000—more than would suffice for keeping up the splendours of State in many a kingdom. In the whole history of industrial development, from the time of Tubal Cain down to this passing of Carnegie, there has been no parallel to the transaction represented by the organisation of the latest American Steel Trust.

THE GREAT STEEL TRUST.

This tremendous combination has a capital of over £229,000,000, and, in addition to taking over the old Carnegie Company, gathers into the same holding seven other of the largest steel undertakings in the country, controlling altogether no less than 274 various establishments. The figures brought into the account of this stupendous amalgamation seem more like those of the Budget of some great State than the details of a commercial concern, and if the profits of the past are to be continued in the future there will be still larger figures to deal with when the time comes for more absorptions and more financial pilotage. The profits of the Carnegie concern alone for 1900 are stated to have amounted to £8,000,000; while the seven other enterprises now coming into the Carnegie ring put down their gains for the same twelvemonth at the following sums: the National Tube Company, £2,800,000; the Federal Steel Company, £2,000,000; the American Steel and Wire Company (of which John W. Gates was so prominent a member), £1,400,000; the National Steel Company, £1,100,000; the American Steel Hoop Company, £1,000,000; the American Tinplate Company, £780,000; and the American Sheet Steel Company, £400,000. Putting all these totals together we get at the aggregate profit for the year 1900 of £17,480,000; and, it is assumed, that economies will be effected by the combination that will put another £2,500,000 or so to the profit account, giving the splendid amount of £20,000,000 as the full yearly earnings. On paper, indeed, nothing could look more promising, and while the present run of prosperity lasts the promise may be realised. What will happen when the rope which is now being given to the trust octopus gets into a tangle and entraps the monster remains to be seen. Two things are possible as the extreme result of bringing industrial operations still further within the grip of the trust-manipulator—either the absorption of the whole by a still greater organisation that shall mean the control of the State and the realisation of the cherished dream of the Socialists, or the overthrow of trust monopolies by a combination that will insure a larger share of profits or a cheapening of commodities to the working communities. The solution will come, however, in its own good time. Meanwhile, our business is with Charles M. Schwab, who for the present may be looked upon as the master of the situation as far as the steel trade of America—and possibly of the world—is concerned. To have the control of such an output as the 274 establishments under his sway will be able to produce is, at all events, to be put in a position of greater power than is held by any other living man in the entire range of industrial effort.

ONLY THIRTY-NINE.

Charles M. Schwab is undoubtedly a great and an interesting personality. He is only thirty-nine years of age, and yet his life has been full of achievement, and to-day he exercises a power that commands the willing allegiance of the greatest body of workers ever got together in one enterprise. He is their commander-in-chief, and among his generals are men who held positions of trust and responsibility before he had left school. Without any one to help him, with nothing to recommend him but his own intelligence and pertinacity, he pushed his way from the humble obscurity of a small country town to a post of responsibility and distinction with a rapidity probably unequalled even in America where sudden rises are by no means uncommon.

Charles M. Schwab

Mr. Schwab is of German descent, and was born in the little village of Williamsburg, Blair County, Pennsylvania, on the 18th of February 1862, his father being employed in a woollen factory there at the time. Williamsburg did not offer much of a field for advancement in those days, and, in 1872, when Charles Schwab was ten years of age, the family removed to the little hamlet of Loretto, on the crest of the Alleghanies, in the hope of bettering their fortune. Loretto was a picturesque place, with many interesting associations, and young Schwab became greatly attached to it. It was there that the Russian prince-priest Gallitzin established his famous religious mission a hundred years ago, long before the valleys below had been given over to the disfiguring power of industry. From this eyrie in the mountains the brave prince had gone forth to spread the blessings of Christianity and civilisation, and much success had attended his efforts. The College of St. Francis at Loretto remains to commemorate the labours of Prince Gallitzin, and it was at the educational institution connected with this college that Charles Schwab received his first schooling. He soon made himself a favourite with the Friars and with the Sisters of Mercy at the neighbouring convent, and the next few years were passed very happily. He was an apt pupil, and was not long in acquiring the foundation of a useful education. But at that early age he had set his mind upon becoming an engineer one day, and as a preparation for that profession he went through a scientific course, graduating from the college in 1880. He had other things to occupy him, though, besides schooling. His father obtained the contract for carrying the mails between Cresson and Loretto, and it usually devolved upon Charles to fetch and carry them; but the drive was exhilarating and he liked it, so this duty could hardly be considered a hardship. Occasionally he worked on their neighbours' farms, and made himself at home in the fields, and helped in all the operations of agriculture with as much earnestness as if he had intended adopting the life of a farmer. One thing was evident—he made many good friends at Loretto. The farmers liked him. The Friars liked him. The Sisters of Mercy liked him. But when he had finished his course at the college, much as he loved the place, the people, and his surroundings, he longed for some more active sphere. To remain at Loretto would have been to have buried himself, and his brain was too active, his mind too ambitious, for that. So, after an affectionate leave-taking, at which his family sorrowed, and the neighbours sighed and shook their heads, he left his mountain home, where he had been so happy, and proceeded to Braddock, not far from Pittsburgh.

FROM LORETTO TO BRADDOCK.

He went to Braddock with an object, and that object was to obtain a situation of some kind in the Carnegie works at that place. But he knew no one there, and brought no letters of introduction, so to begin with he had to turn himself to something else and bide his time. Apart from the ironworks, there was not much choice of occupation in Braddock, but he managed—by great good luck, as he thought—to get a position in a small grocery store in the town, where he again added to his stock of knowledge, becoming familiar with all kinds of small commodities of daily use, which he served out over the counter as carefully as if the weighing out of sugar, tea, and flour was to be the business of his life. Although he did not while in this service attract any special attention, it was remarked that he was attentive to his work, civil to the customers, and never made mistakes. Still, there was no one in Braddock probably that imagined they had a future millionaire serving in the little grocery store.

So matters continued until one day, in 1881, Captain Jones, one of Mr. Carnegie's superintendents, made a casual call in the shop—perhaps for a packet of tobacco, perhaps for a box of matches—it is not recorded what. Whatever it was that the Captain wanted it was young Schwab who got it for him, for young Schwab knew who the customer was, and young Schwab did not mean to let him leave the store without having a few words with him on other things than groceries or the weather.

"A hot day," said the young man.

"A *very* hot day," assented the Captain, "but hotter in the foundries a good deal than out here."

"Yes, but I'd rather be in the works than here—a lot," said young Schwab, adding with an earnestness that surprised the Captain, "and if you could only give me a job I should be so thankful."

Captain Jones became interested, and asked the lad a few questions as to what he had done up to that time, what his capabilities were, and so forth. The replies were readily given, and made a good impression on the superintendent.

"What is it you want to be?" asked the Captain.

"I want to be an engineer," answered young Schwab.

"That may be," said Captain Jones, "but are you sure you have the necessary qualifications for an engineer?"

"I am sure of it," was the reply.

"Very well," said the Captain, "can you drive stakes?"

"I can drive anything," said the lad.

"Will you work for a dollar a day?" was the next query.

"Certainly," replied young Schwab, "I will work for anything I can get."

FOOT ON THE LADDER.

Thus it came about that after six months' service in the grocery store he was taken into the employment of the Carnegie Company, and began to drive stakes at a dollar a day, and so well did he drive them, so industrious and intelligent did he show himself, and so keenly alert was he to any opportunity of improvement that might present itself, that in the short space of six months—no longer a time than was covered by his waiting service in the grocery store—he found himself, not one or two stages higher than when he entered the works, but away up at the top. It was no case of advancement by rule of seniority with Charles Schwab. He had made his ability felt in the works, and gained recognition for it, so when Captain Jones, at the end of that initiatory six months' term of Schwab's, was promoted to the position of general manager of the Braddock establishment, the young stake-driver was selected to succeed him as superintendent. It was a great lift for the young man; but, as he had said at his first interview with Captain Jones, he could drive anything, he now felt that he could superintend anything, and he has been superintending ever since, getting gradually higher and higher in the scale and scope of his service, until now he is president and manager of the world's greatest and most famous industrial organisation. But when once Mr. Schwab got into the running there was no holding him back. It had been so out in the little mountain village of Loretto, and it has been so all along. Whenever and wherever his ability had been put to practical test he had come out successful. Such a man was bound to attract the notice of Mr. Carnegie. Mr. Schwab, indeed, was a man after Mr. Carnegie's own heart—quick to see, quick to act, quick to overcome difficulties, and full of energy and resource. It has always been a principle with Mr. Carnegie to give exceptional talent exceptional opportunities, and he never lost sight of his clever young men. Mr. Schwab would doubtless have been a success anywhere—in any sphere—but here he dropped into the life that of all others he was the best fitted for; in the Carnegie works he was put into touch with the great industrial problems of the day, and was a happier man in working them out than other men are in following their pleasures.

No Easy Task.

It was no easy-going overseership that Mr. Schwab entered upon in assuming the position of superintendent of the Edgar Thomson works of the Carnegie Company at Braddock. The works were in the first flush of expansion. Orders were pouring in from all quarters to the company, and it was hard to keep any sort of pace with them. It devolved upon Mr. Schwab, therefore, to plan and direct the construction and erection of new blast furnaces, and eight of the nine furnaces now existing in the Braddock establishment were devised by him. It was now that he began to display his marked genius for mechanical engineering as well as for managerial duties, and during this period was the means of introducing many improvements of great value, giving the works a greatly increased output, and enabling the company to compete successfully in the markets of Europe as well as in those of America.

ANOTHER STEP UPWARDS.

He soon made himself of such importance to the Carnegie Company that he was appointed to the position of chief engineer and general manager of the Edgar Thomson Works, and filled that post down to 1887, during which period he collaborated with Captain Jones in the development of an invention which, when completed, proved to be of great value to the steel industry. This invention, known as the "Metal Mixer," considerably reduced the cost of production, and was the means of giving Captain Jones no little fame in the world of metallurgy.

For six years Mr. Schwab devoted himself with steady zeal to the management of the Edgar Thomson portion of the Carnegie Works, and everything prospered under his hands. So well had he done, that it was in the nature of things that he should have the opportunity opened up to him of doing still better. That opportunity came, when, in 1887, he was offered and accepted the position of superintendent of the Carnegie Homestead Works, the most extensive and important of the various establishments operated by the Carnegie Company. Here Mr. Schwab entered upon enlarged duties, and came in touch with the steel manufacture in its most active form. He reconstructed the entire plant, introducing many improvements both in system and in mechanism, making the works the most efficient, as they were already the most extensive, concern of the kind in existence, enlarging their scope and capacity, enabling them to add to their operations the production of steel blooms, structural shapes, bridge steel, boilers, armour-plates, sheet and tank plate, and all other descriptions of large work. The Homestead plant has now a capacity of 2,000,000 tons of steel per annum, embracing forty open-hearth steel furnaces, two ten-ton Bessemer steel convertors, and thirteen different rolling-mills. Within the boundaries of the works there are thirty-seven miles of railway track for the transportation of material and produce.

THE ARMOUR-PLATE MOVE.

It was mainly owing to Mr. Schwab's initiative that the Carnegie Company undertook the manufacture of armour-plates. They had frequently been approached by the naval authorities of the United States Government on the subject, and special inducements had been offered, but the difficulties in the way of handling such heavy articles were so great and necessitated such costly additions to the plant that Mr. Schwab's predecessors had naturally enough hesitated to incur the outlay. Mr. Schwab, however, thought the matter out in his own way, and held many grave consultations with Mr. Carnegie on the subject, and in the end, having had sufficient assurance of orders from the Government to warrant the experiment, steps were taken to introduce this important branch of steel working into the Homestead Works. Thus put on his mettle, Mr. Schwab soon laid down a clear course of action, and under his guidance the Carnegie Company became among the most important producers of armour-plate in the world, not only supplying huge quantities to the Home Government, but executing large contracts for other countries, notably for Russia, which country had previously obtained much of its armour-plate from England. The achievement of the Homestead Works in this direction reflected great credit upon Mr. Schwab, and still further strengthened his position. It was no ordinary feat, that of conquering the obstacles that stood in the way. Time and again, trials had been made to overcome these difficulties before Mr. Schwab came on the scene, but it was reserved for him to carry the thing through with success. To him, indeed, no particular difficulty presented itself. Armour-plate was manufactured at other steel works, and what could be done elsewhere could be done at Homestead. It was simply a matter of equipment and cost. So the armour-plate manufacture was brought about, and has ever since proved to be one of the most profitable departments of the great steel company's operations.

A DUAL MANAGER AT THIRTY!

On the death of his old friend, Captain Jones, in 1889, Mr. Schwab returned to the Edgar Thomson works at Braddock, the scene of his first successes, and took upon himself the general superintendence of affairs there. This was necessary in order to insure an uninterrupted continuance of managerial policy there. And so matters went on until 1892, when it was found that his able guidance was also required at the Homestead Works again, and he got over the difficulty by assuming the management of both establishments —a tremendous responsibility for one who was only thirty years of age. Thenceforward he made his headquarters at the Homestead Works, which thus for the second time came under his management. He had mastered the details of the two businesses so thoroughly, however, and knew the position and capacity of each department of the two so accurately, that he was able to perform with comparative ease a task from which almost any other man would have recoiled. Here were two immense industrial concerns, employing many thousands of men, and producing millions of tons of steel of various forms every year, placed under the direction of one individual, entrusted entirely to his care, and expected to yield large profits in the teeth of keen rivalry. But each year his record was improved, and Mr. Carnegie could travel abroad on his "four-in-hand tours"; betake himself for long spells to his books, and let his enthusiasm loose upon the manuscript of his "Triumphant Democracy"; or hie away to the lochs and glens of his native Scotland, without feeling the least misgiving as to the conduct of the great steel works he left behind him at Pittsburgh. So long as Mr. Schwab was in charge the founder of the enterprise knew that all would be well.

FORGING AHEAD.

In 1896 Mr. Schwab was elected a member of the Board of Managers of the Carnegie Company, and in the following year succeeded Mr. John A. Leishman (now United States Minister to Switzerland) in the office of president of the Carnegie Steel Company. Then, on the 22nd of March 1900, Mr. Schwab had the further honour conferred upon him of manager of the old Carnegie Company, thus practically becoming the active business head of the whole of the Carnegie enterprises. This dual presidency, the responsibilities of which have been so great, Mr. Schwab has held to the entire satisfaction of those who have been associated with him, whether as officials or workers, up to the present time, and in becoming president and general manager of the new combination he is like a king who has been acclaimed an emperor, and lifted from the position of ruler of a principality to that of supreme monarch of a confederacy of kings. Some of the companies included in the amalgamation are engaged in operations of a somewhat different nature from those carried on at the old Carnegie establishments, although the materials they handle are of steel or iron, and to some men in Mr. Schwab's position this might suggest a difficulty, but to a man who rose from stake-driver to superintendent in the short period of six months, any additional responsibility of this kind will not be disturbing. It is not likely that there is any operation in iron or steel that he is not capable of dealing with. Knowledge of such things is intuitive with him. He may therefore be safely trusted with the command of the whole of the combined forces, new and old; he is tolerably sure to guide them in the right direction, that is in the direction of handsome profits, which is mainly what the stockholders are looking after. There is a consultative committee of five directors, as a sort of managing body, and Mr. J. Pierpont Morgan, the financier-in-chief of the organisation, is among them; but it will be upon Charles M. Schwab, the man of practical experience and administrative genius, that the main responsibilities of management will fall.

YOUNG MEN AT THE HELM.

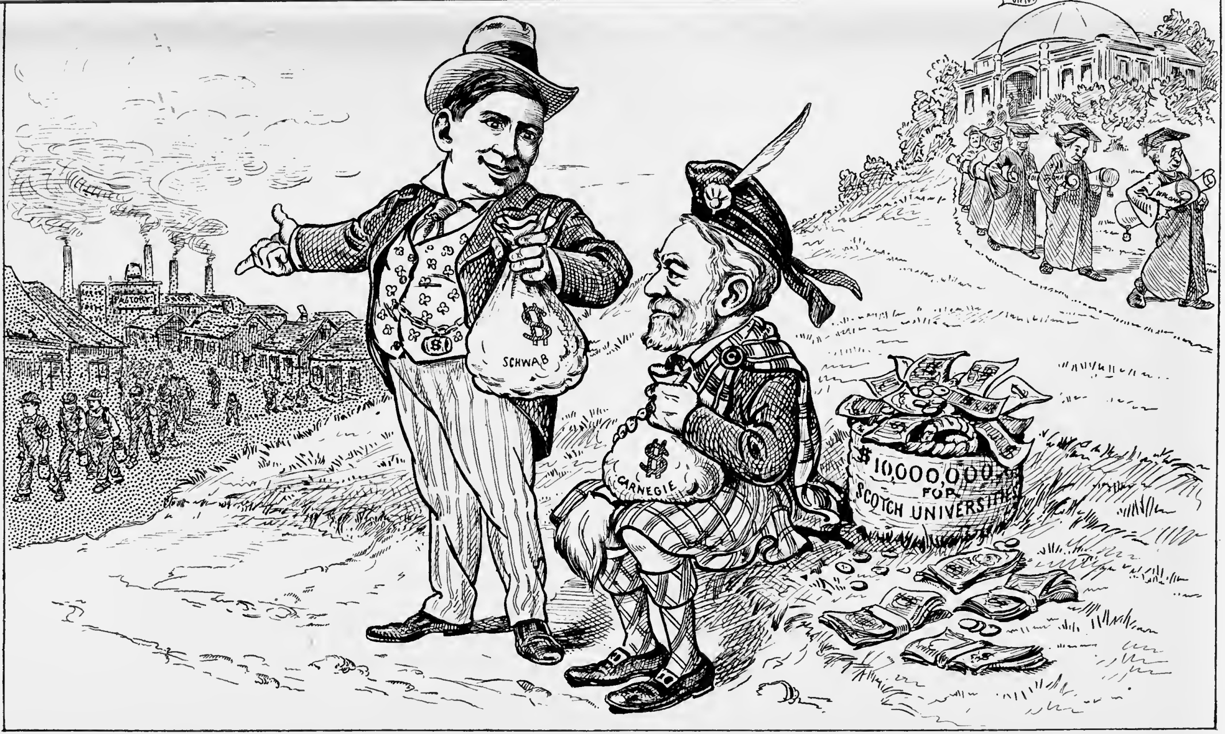
It is worth remarking that the direction of the great undertaking is chiefly in the hands of comparatively young men. Mr. H. C. Frick, like Mr. Carnegie, has retired from the enterprise, receiving £10,000,000 worth of stock as an equivalent for his former interest. There are numerous others of the older men who are shut out from the new combination so far as any active work is concerned. It was one of the problems involved in the conversion, how to bring the representatives of the older Carnegie interests into harmony with the new blood that was to be introduced, and in that difficulty, as in others, it was Mr. Schwab's powerful influence and capacity of suggestion that reduced conflicting elements into subjection. But for Mr. Schwab, indeed, it is probable that the gigantic combination would not have been consummated. In fact, at one time the negotiations were blocked, and serious trouble was threatened. All was smoothed over, however, by Mr. Schwab's tactfulness, and the result is that what the Americans call the "Billion Dollar Trust" is now in full swing, with Mr. Schwab in supreme control.

LUCKY LORETTO!

Apart from his business career, Mr. Schwab has not had time or inclination to figure very prominently. He takes a deep interest in the affairs of the local Catholic church, but more especially in the religious institutions of Loretto, with which he was connected as a boy; but for the social grandeurs he cares but little. Loretto, however, will have good cause to keep him in memory for generations to come. He has built a handsome Catholic church there, and was one of the chief donors of the Aloysius Academy, a convent school conducted by Sisters of Mercy at Cresson, to which place he used to drive with the mails when a boy. He has also announced his intention of erecting at his own cost an Alumni Hall for Loretto. It is lucky for Loretto that Mr. Schwab preserves so much sentiment for the picturesque little place. It is to the gain of both that it should be so, for it is surely humanising to a man so absorbed in business affairs as Mr. Schwab is, to have this link of affectionate regard for old associations continued and kept untainted. Every stage of Mr. Schwab's success seems to have been reflected back upon Loretto by the bestowal of some new gift. Among other things, he has provided the town with an electric light plant, thus putting this little community on the crest of the Alleghanies in advance of many a large English town as regards electric service. A monument to Prince Gallitzin was also erected by Mr. Schwab in Loretto.

THE LOVE STORY.

Mrs. Schwab lived in Loretto when her husband was at school there. They were both playmates and schoolmates, and long before young Schwab left for Braddock they had promised themselves to each other. The idea of providing a future and making a place for himself and his village sweetheart in the busier world away from the mountains was one of the youth's chief incentives to greater effort. The young lady was a Miss Emma E. Dinkey, whose parents, like those of Mr. Schwab, were in comparatively poor circumstances. When the ambitious young graduate went away from Loretto there was a good deal of sorrowing, and it did not seem likely that the couple would be able to be married for some years to come. Mr. Schwab had everything to make. He had no position to go to, nor was income of any kind assured to him. The engagement in the Braddock grocery store at ten shillings


FACTORY
SHOP
SCHWAB
CARNEGIE
$10,000,000 FOR SCOTCH UNIVERSITIES

AN OBJECT LESSON

SCHWAB (*to* CARNEGIE).—This is the school most people must go to, and the one that has always turned out the biggest men. That other school is for the few, and is already turning out too many doctors, ministers, lawyers, and clerks. Don't you think we ought to improve conditions in *our* school rather than in that other one?—*After a Cartoon in "Puck." By permission of the Proprietors.*

a week did not seem over promiseful either; still, no doubt, they wrote hopeful letters to each other, and after Mr. Schwab's lucky meeting with Captain Jones, and his promotion to the rank of stake-driver, matters soon assumed a brighter prospect. After that all seemed to be sunshine for the young lovers, and when Mr. Schwab reached the age of twenty-one, and found himself in possession of an income sufficient for a modest young couple to start housekeeping on, he obtained leave of absence, posted off to Loretto, and got married. This was in 1883. In the following year his salary was advanced to £1000 per annum, and he thought his fortune was made. And so it was. At least a very sound and lasting foundation had been laid, for from that time his yearly income has gone on increasing by leaps and bounds, like his managerial responsibilities. That he is now a rich man goes without saying. Of the £32,000,000 stock of the former Carnegie Company he held 18,929 shares, having a par value of £3,785,800, and he held the same amount in bonds. His present total holdings represent about £400,000 for every year he was in the service of the Carnegie Company. After that, the story about the £160,000 a year salary does not seem such a fairy tale of industry as it did on the first blush. Mr. Schwab has three residences; one at Pittsburgh, a palatial mansion which cost £75,000; one at Braddock, and one at Loretto, as has already been stated. So far, Mr. Schwab has equalled, if not surpassed, Mr. Carnegie in the art of rapid climbing and wealth accumulation; and one can only wonder how the record will stand with the new president-manager when he has so many years to the count of his industrial career as Mr. Carnegie owns on his retirement. Many more of the Carnegie millions will doubtless have gone to the making of great libraries and art-galleries. What will Mr. Schwab be falling back upon? To-day, he is the man of business *in excelsis*. The highest embodiment of the American trust idea. After him—what? Is it to be State control of industries, or is there to be a great war upon trusts? Who can answer?

CHARLES TYSON YERKES

THE AMERICAN STREET RAILWAY KING

In Charles Tyson Yerkes we have a very typical example of the modern American man of business. He is not a financier in the strict sense of the word, and yet he has had the handling of great enterprises in which large amounts of money have been involved. He is not connected with any special industry, still, he has been the means of rendering valuable aid to the development of his country's industrial affairs. Carrying the negative style of argument still further, it might be said that he is not to-day engaged in several other capacities which he at one time or another has endeavoured to fill. He is simply a speculator in and controller of street railways, and has probably done more than any other man to bring about the present effective condition of street tramways transportation in the leading cities of America, which are, it has to be confessed, as far ahead of our own cities in this respect as the latter are in advance of the former in general cleanliness and good paving. Chicago, where Mr. Yerkes has his headquarters, is one of the worst-paved cities to be found anywhere, yet for twenty years or more it has enjoyed a system of tramway service which has represented the latest developments of tramway transit and been of great advantage to the extension of the city—the linking together of town and suburb.

The London Maze.

This being so, Mr. Yerkes may well have been surprised on visiting London to observe how the streets are crowded and rendered almost impassable with omnibuses of a lumbering, antique type, moving at such a funereal pace as would

CHARLES TYSON YERKES

THE RAILWAY-TUBE KING

From a Portrait by LANGFIER, *London and Glasgow*

not be tolerated in any ten-year old town of the United States. The sight of this inextricable maze of vehicular traffic must have been in the highest degree bewildering and irritating to him, unless it engendered immediate dreams of gigantic schemes for rescuing London from its vehicular bondage. With the consciousness of what he had accomplished in America strong upon him, he naturally began to study the problem of street passenger traffic as it was here presented to him, and it was not long before he arrived at certain definite conclusions as to what ought to be done. The conditions were different from the conditions in Chicago or Philadelphia. In the American streets the thoroughfares are uniformly wide and mostly straight, permitting of a double line of tram-rails being put down without serious detriment to the passing and re-passing of the vehicles of commerce and pleasure; but no such solution of the difficulty was possible in London, where even the main arteries are comparatively narrow. It had to be either by overhead or underground relief-ways that the thing had to be worked out, and London had not become so utterly utilitarian as to be willing, even for the sake of having the means of ingress and egress appreciably increased, to have its thoroughfares disfigured with elevated roads. So, although such underground railways as already existed were continually being denounced by Londoners, it was only by additional underground systems that there seemed to be any prospect of ready relief. It was not Mr. Yerkes who was the first to tackle this great work, but it was the opening of the "Two-penny Tube"—an American idea carried out on American lines almost throughout—that showed the direction in which the question of rapid transit in and around London was destined to be ultimately worked out. Underground ways, electricity as the motive power, and a train-equipment like that of the American elevated railways, were the necessities, and the success of the first enterprise of the kind was so marked that there were immediate calls for other similar undertakings. Then it was that Mr. Yerkes took his place in the transformation scene, and how many of the successive developments he is destined to witness or assist in is more than he himself could predict at the present time. But his appearance means business, and profit, and rapid results, if he can obtain anything like as free a hand as he had in America. His associations with England, however, are now sufficiently strong to make his personality a matter of interest to the British public, and a glance at his career will show how well he has acquitted himself in the double task of fortune-building and ministering to the traffic requirements of the time.

Early Success.

Before Mr. Yerkes allied himself with British electric railway schemes he was well enough known in the English financial world, and Englishmen who had travelled in America knew something of him by repute, but to the people at large his name carried with it no significance or meaning at all, which shows that, close as is our touch with the land of the Stars and Stripes on many points, it is still possible for a man of business to work himself up from obscurity to fame and competence in America—even to become a multi-millionaire, and to have under his control some of his country's most profitable undertakings—without any of his glory being reflected upon the British people.

Reared in the Quaker City.

Mr. Yerkes was not brought up to any profession or industrial calling, but, having the money-making instincts strongly developed, he was able while a very young man to make his way into channels where profit was to be made. He was born in Philadelphia, nearly sixty years ago, and it was there that he received his education and made his first business ventures. Although Mr. Yerkes would have "got on" anywhere, Philadelphia was in his youthful days the next best place for a business mind to ripen and gather experience in to New York. In these days the Quaker City is voted slow by the more high-pressure cities of the Union, but when young Yerkes was casting about for enterprises of profit, Philadelphia was quite abreast with the times and up-to-date in every way. Native Philadelphians insist that it is so to-day.

A SMART IDEA.

When Charles Yerkes was a boy of twelve he initiated himself into the art of bargain-making. Usually, at such an age, a boy is too much occupied with fun and frolic to think of watching the course of business, and the spending of money is more to his taste than the making of it. Young Yerkes, however, was as exceptionable as a boy as he afterwards proved to be exceptionable as a man; and he used to regard it as an agreeable pastime to attend certain Saturday auction sales in a local auction-room. It was the best of excitement to him to stand among the crowd and watch the buying and selling of the miscellaneous wares and commodities that were put up, and he often amused himself by mentally calculating the probable profit a man would realise from his purchase. He was not at first able to speculate himself, much as he longed to do, for the reason that his pocket-money was not ample enough to admit of such indulgences. But presently a day of terrible temptation came. Walking into the auction-room one Saturday some time before the opening of the sale, and taking stock of the goods set out in readiness for offering, he observed a number of boxes of soap of a brand that was familiar to him because it happened to be the same as that which he was in the habit of purchasing for his mother at a corner grocery store. Surely, he argued with himself, there was something to be done here. After reflecting for a little while, an idea occurred to him, and he walked over to the family grocer and asked him what the particular brand of soap was worth per box. The affable grocer, knowing the boy and imagining that he had been sent to make a large purchase, quoted eleven cents a pound as the price for a quantity.

Young Yerkes had always been accustomed to pay twelve cents a pound. "Eleven cents a pound!" cried the boy. "Oh, that's too much." Then the grocer assured his youthful questioner that really there was very little profit made out of the soap, and to emphasise this view he remarked that he would be glad to give nine cents a pound for any quantity. This was all the information young Yerkes desired, so, making some plausible excuse, he left the grocery store and went back to the auction-room on business intent, counting his little stock of pocket-money—which he had been steadily saving up for a time—on the way. The soap was put up for sale soon after his return, and he made bold to start it on the run himself by making a bid of six cents a pound. His shrill, juvenile voice caused every one in the room to look round, but, nothing daunted, he stuck to his post, and bid for and bought one box after another until he had fifteen boxes knocked down to him at six cents per pound. After that he took five more at five and a half cents. Then, proud of his bargain, he hurried across to the family grocer again and told him that he had twenty-five boxes of the soap for him at the price he had named, nine cents a pound. Though hardly prepared for this, the grocer could not very well go back on his word, so he took the soap and paid for it, and the juvenile Yerkes marched delightfully homeward, the richer by sundry dollars. From that day he resolved that he would become a man of business.

FROM FLOUR TO STOCKBROKER.

When his schooldays were over, Mr. Yerkes obtained a position as clerk in a flour and grain establishment, but without salary, though at the end of his first year's service his employers were so satisfied with him that they made him a present of £10. In this situation Mr. Yerkes picked up some valuable knowledge of business routine, being always diligent, energetic, and painstaking; but his ambition soared far higher than a clerkship in the flour and grain trade, so, in 1858, at the age of twenty-one, he launched out on his own account, and started business as a stockbroker. This was not a difficult matter to accomplish. That is, as far as the initial stage was concerned, for the business of finance was not then so fenced round with restrictions and conditions in America as such a business was (and is) in England. If a man wanted to embark on such a career, the course was open to him; all he had to think about was the getting of clients; and this Mr. Yerkes contrived to accomplish with more than average readiness, his manners and methods being such as to inspire investors with confidence. It was not long before he was able to number several wealthy citizens among his patrons, and in the course of three years he found himself in command of sufficient means to encourage him to branch out into the regular banking business. Charles Tyson Yerkes became one of Philadelphia's bankers.

A "SPECIAL" BANKER.

There are bankers and bankers, however, and Mr. Yerkes decided upon being one of a rather special kind. The period was that of the Civil War, when everything in connection with financial affairs was strained. It was a time of extraordinary risks and extraordinary opportunities. There was much reckless speculation indulged in, the mark of the gambler was set upon all classes of securities, and the fluctuations in stocks were so irregular and inexplicable that it took a cool head to keep any sort of track of them. Mr. Yerkes, however, was for a time quite equal to the occasion, and kept cleverly in the running, to the advantage of his clients and himself. It was not with ordinary stocks that he pushed his way ahead. They were dangerous to handle, and he let them alone. Government, State, and city bonds were steadier, and offered a better field to one who understood them, and of this line of securities Mr. Yerkes became a specialty, and did so well with them that he became quite prosperous—almost wealthy—and began to look the future in the face with a good deal of confidence, certainly without misgiving. Moreover, he was able to do the city a good turn by his ingenious way of dealing. The city bonds made but small realisations owing to the fact of the high premiums put upon gold, the interest being payable in currency. In this difficulty Mr. Yerkes hit upon a scheme whereby the price could be advanced from 85 cents to par, which was a great boon to the city, enabling the municipal authorities to raise money enough to pay bounties to the soldiers as well as to provide funds for the establishing of public parks which were at that time much agitated for. According to the terms of its charter, the city could not sell its bonds at less than par, consequently when the price fell below that figure the municipality was practically without funds for either war bounties or improvements. The scheme which Mr. Yerkes brought forward removed the harassing restrictions, and the young banker began to make money more rapidly than ever. His connection with the city was of considerable advantage to him. It stamped him as a substantial and trustworthy man, and was the means of attracting much good business to him. Success upon success resulted, and his fortune seemed made.

A Financial Panic.

Thus matters went on, with apparent assurance of continued prosperity, until the sudden depression of the financial panic which followed close on the heels of the Chicago fire. Every banker and broker in the country was affected. Hundreds failed. The strongest firms were shaken. All over the Union the story was the same, and, substantial as Mr. Yerkes was, cautious as he had been, and resourceful as he was, he found himself with an enormous load of securities on his hands, and before he could realise them he was forced to surrender. One day he had seemed in the full flush of prosperity, the next he was bankrupt. To add to his embarrassment, he was indebted to the city authorities in heavy sums for bonds sold on their account. They demanded an immediate settlement, and thus forced him to the wall, for rather than give them an undue preference over his other creditors, he decided on making an assignment in which all would share equally. This action, although it ultimately made him many attached friends and gained him the general respect of the community, brought down upon him the wrath of the city fathers, who pressed matters so harshly that for a time he suffered imprisonment at their suit. Still he preferred that to an unfair distribution of his assets. It was a terrible ordeal for the young banker to have to undergo, but he bore it resolutely and manfully, and when he was at liberty to enter again into the financial strife he was not without friends and supporters. His mishap had been one of pure misfortune, and as no imputation rested upon him, he was able to make a fresh start with little difficulty.

THE STREET RAILWAY IDEA.

The subject of street railways had engaged Mr. Yerkes's mind even before his failure, an interest of his in a Philadelphia tram-line being among the things that were realised for the benefit of his creditors. But now that he was free to take stock of things, and without the worry of daily venturings on the exchanges, he turned almost instinctively to this new sphere of action, it being clearly demonstrated to him that it afforded him the best opening for the restoration of his shattered fortunes. Having this end always in view, he resumed operations in stocks and shares, but in a quiet and exceedingly cautious way, running few risks and handling only high-class securities. He was soon putting by money again, and when the Jay-Cooke failure of 1873 occurred, he was able to turn that staggering event to profitable account by a daring course of action that few men could have adopted with equal success. He was quick to foresee that Mr. Cooke's collapse would mean a serious decline in stocks of all descriptions, and he prepared for this, and by selling heavily before purchasing made large and speedy profits, with the result that he re-established himself on a sound enough monetary basis to permit of his obtaining a valuable interest in the Continental Passenger Railway of Philadelphia.

A TURNING-POINT.

This was one of the chief turning-points of his life. It had the effect of putting him in direct touch with the class of enterprise that more than any other he longed to be connected with. It drew his mind from the riskier speculations of the money market, and gave him work to do and plans to evolve and problems to solve that exactly suited his mental equipment. In a short time he was in practical control of the undertaking, and so admirably did he manage the affairs of the company that the stock, which was at about £3 per share when he took office, advanced steadily until it reached the value of £20 per share or more.

This was a great achievement. His success decided his future. He gave up all other work and speculation and devoted himself to tramways alone; and he was wise in this, for he could think ahead in these matters and make money out of them where many failed. He had discovered his *métier.* And how energetically he laboured! He was at his office before six o'clock of a morning, and did not leave until late at night—Sundays as well as week-days. The result of all this effort was that he accumulated a considerable amount of capital for himself, made high dividends for the shareholders, and set the organisation on a thoroughly sound footing. Then, like Alexander, he longed for other worlds to conquer, and, unlike the Greek general, found a few left for him to battle with.

WESTWARD HO!

There was nothing further to tempt him in Philadelphia, so he journeyed west, and in 1880 paid a visit of inspection to Chicago. At first he was inclined to enter upon street-railway schemes in that city, having a good amount of capital at his disposal at that time, what with his own accumulations from the settling out of his interests in Philadelphia, and the amounts that his friends were ready to venture with him in any promising enterprise. But he felt a little uncertain about Chicago. Not that he doubted its continued expansion, but because of the difficulty of determining just then which particular point of the West was destined to become the chief money centre. Things in the West were in a state of transition. Chicago offered fine prospects for tramway developments, it is true; but perhaps some other Western city might be still more favourable. In this frame of mind he resolved upon a further journey of exploration, and directed his steps towards the great territory of the North-West, visiting St. Paul, Minneapolis, Duluth, and other cities scattered about the banks of the lakes and rivers of the far-stretching wheat and ore States. None of these places, however, fully satisfied his requirements, so he proceeded still further west, taking the route of the Northern Pacific.

WONDERFUL STORIES.

At Fargo his progress was interrupted by a blinding snowstorm that compelled him to remain at the hotel there for many days. He made himself as comfortable as he could, however, and entered freely into conversation with the rough-and-ready guests of the house, who sat in characteristic postures over the great stove and related wonderful stories of the development going on in the different parts of the country they came from. They sounded very much like fairy tales, but by degrees he began to sort them out and to put questions to the narrators, and came to the conclusion that beneath the general surface of exaggeration there was a sufficient substratum of fact to give a wandering capitalist food for thought. He became particularly interested in the tales about North Dakota, and began to have dreams of new cities, new streets, new railways, new banks, and other newnesses in that much-lauded region. According to the stories he heard, North Dakota was a veritable El Dorado. The crops had been good and prices were high, it was said, and everything pointed to a great "boom" in that State in the immediate future. Mr. Yerkes was no dreamer, however, but was in all things intensely practical. The tales he had heard simply influenced him to the extent of engendering a strong desire to visit North Dakota. Nothing more. He would take no action on any fancy pictures, no matter by whom they were drawn, and had just as strong a dislike to trusting his own imagination. He must have solid fact to work upon.

STARTS FOR DAKOTA.

So when the snow died down sufficiently to admit of his continuing his journey, he set out in the direction of North Dakota, and when he arrived there and had had time to look about him he was so satisfied with the prospect that he organised a syndicate—partly composed of his Philadelphia friends—with the express object of obtaining concessions and embarking upon projects connected with the development of North Dakota. Then followed a few months of what may be called reconnoitring or prospecting, during which Mr. Yerkes was carefully taking the measure of things out there, and the next spring, when the land looked bright and smiling and productive, he invited his Eastern associates out to that State, and in a very short time afterwards they had entered upon vast schemes, involving the building of spacious new streets, vast building blocks, factories, and what not, while they laid out great tracts of land into building lots, and the usual Western mushroom process of throwing up new cities and establishing new and populous communities was proceeded with under the direct superintendence of Mr. Yerkes. The influence that he exerted was astounding. His object was to create prosperous settlements, and as far as his aims extended he succeeded. The first fair or exhibition in North Dakota was organised by Mr. Yerkes, and was of great service to the farmers, the display of agricultural machinery being of a very complete kind.

North Dakota, for all that, was not to the mind of Mr.

Yerkes exactly. Things didn't move rapidly enough there for a man of his spirit and activity. He missed the pace of the great cities. Waiting for harvests to grow and settlers to settle strained his patience. Indeed, the agricultural interests did not appeal to him strongly, and certainly North Dakota was not populous enough to afford him any of those great opportunities of street-development upon which he had set his heart. So, after a year or so of busy and not unenjoyable existence among the vacant places of the North-West, he sold out most of his holdings there, and in the autumn of 1881 removed to Chicago, resolving to throw in his luck with the pork metropolis, and try to advance his fortunes there. To begin with, he opened a bank, in conjunction with one that he still retained an interest in in Philadelphia, for it was as a banker only that he was known in Chicago for the next few years.

STICKS TO THE TRAMWAY.

But Mr. Yerkes had his eye on tramway development all the time. He never lost sight of it, never relinquished the idea of taking it up. He simply bided his time, watching all that was going on, and studying the matter in every aspect, prepared when the proper moment arrived to step forward and declare himself. At length, in 1886, after waiting five years, the anxiously looked for opportunity presented itself. This was in connection with the Chicago North Side Railway, an enterprise which was not doing much for its shareholders, and which fell far short of fulfilling the requirements of the district it traversed. Mr. Yerkes saw the defects of the system, and acquainted himself with their causes, after which he was in a position to negotiate with the company, and made them an offer. Before making the proposal, however, he had broached the project to certain Chicago capitalists, as well as to a few of his old friends in Philadelphia, and having made sure of their backing, he put himself in communication with the old directors. The result was the purchase by Mr. Yerkes and his associates of the entire undertaking. Then Mr. Yerkes got to work in his old energetic way. He formulated a new scheme, including extensions and improvements, obtained new and highly valuable concessions from the city authorities, and, with a freshly-organised company, of which he became president, he entered upon his remarkably successful career of Chicago tramway management, throwing his whole soul into the work, and introducing a marvellous change in street-railway traffic. One of the first things he did was to supersede the old horse-propelled cars by the underground cable system. He quickened the pace of things altogether, and by giving the public better facilities of transit, greatly increased the number of passengers, and correspondingly enhanced the profits of the undertaking.

PROSPEROUS VENTURES.

Two years later Mr. Yerkes was able to get hold of the Chicago West Division tramway system. After buying the greater part of the stock, and thus becoming master of the position, he set about reorganising the company, as he had done with the old North Side company, and in a short time he was in main command of the Northern and Western systems, and had won the confidence both of the public and the capitalists who were associated with him in the two ventures. He was supreme, and for a number of years he and his party continued to operate Chicago street railways with splendid success, extending and extending, until they came to have over 500 miles of tramways under their control.

HEALTH-PROMOTING VENTURES.

Mr. Yerkes also conceived the idea of organising other lines extending out into the prairies, to connect with the two original lines. A number of companies were organised, and three lines were built. It was impossible, however, for them to enter the heart of the city, and they were obliged to stop at some distance therefrom. To remedy this, Mr. Yerkes planned a loop-line, which would connect with these different roads, and run into the densely settled part of the town.

He also organised the North-Western Elevated Railroad, to carry passengers north. The three original elevated roads were unsuccessful until the loop-line was built, and after they had undergone a reorganisation, the company was leased to the elevated roads, the four roads using the loop-line together.

In this way a perfect system of street railroad travel was formed, extending from the north, north-west, west, and south. Mr. Yerkes's plan was to consolidate all of these lines, and also the surface roads. The effect of all this was that passengers could be carried long distances for a single fare of five cents, and thereby the tenement house was eliminated from the residence districts of Chicago. The labouring classes were enabled to have homes out on the prairies, the only disadvantage being in the difference of time which it would take for them to go from their residences to their places of business.

This revolutionising of the street traffic has had much to do with the improvement of the health of the people of Chicago, and has tended to keep the death-rate at a very low percentage.

WHEN FORTUNE CAME.

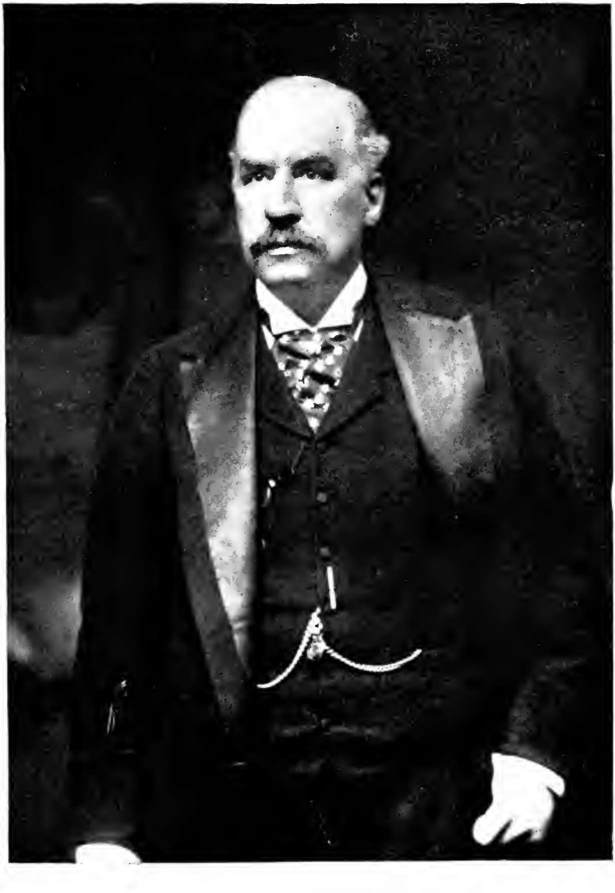
Those were prosperous and busy years for Mr. Yerkes. The reward was commensurate. He and his fellow-capitalists became multi-millionaires, and Mr. Yerkes built himself a lordly mansion in New York—the paradise of American millionaires—where he appeared and shone from time to time, though he never threw Chicago over, but has all along kept up his residence there, passing more time perhaps in the Western city than in the capital, for although Mr. Yerkes is now one of the money peers of America, and has a fine picture-gallery, and entertains somewhat, he has little sympathy with society displays and the ceremonies and shows of fashion, and still regards Chicago as his principal home, and Chicago men as his closest friends.

Within the last year or two, however, Mr. Yerkes has been compelled to relinquish a good part of his hold on the Chicago street railway systems, for on the expiration of the leases there was no obtaining a renewal of them on the old terms. A strong spirit of opposition was aroused against the re-granting of the original concessions. The people were told that the road privileges were being given away, instead of being made to contribute to the funds of the city and the lessening of taxation, and the agitation became so strong that the capitalists had in the end to confess themselves beaten. Since then the holdings of Mr. Yerkes in Chicago street railways have dwindled considerably, though he is still a ruling spirit, as he ought to be; for even allowing that the terms of the first concessions were of such a character as gave him the means of enriching himself, it must be admitted that in return he provided the city with a new, quick, and efficient service which was well worth paying for.

It remains to be stated, that when fortune came to Mr. Yerkes he did not forget his obligations to his old creditors of the days of his misfortune in Philadelphia. Paying a secret visit to that city, he invited them all to a dinner at the leading hotel, and when the repast was over presented each guest with a cheque for the amount of his original claim, with compound interest at 6 per cent.

Mr. Yerkes, besides being an art connoisseur, takes much interest in scientific and educational matters, and has given to the University of Chicago a telescope, said to be the largest and finest in the world, at a cost of £100,000. The object glass of this gigantic refractor by Alvan Clark is forty inches in diameter, being four inches more than the great "Lick" instrument.

In regard to street railways, Mr. Yerkes is acknowledged to be one of the greatest living authorities, and in bringing his great ability to bear upon the London traffic problem he may have even a wider field for developments than he discovered in Chicago. He may not be able to secure such favourable concessions as were given to him by the Chicago municipality, but, for all that, the opportunities will be great and the reward handsome, doubtless, and he will make many friends.



J. PIERPONT MORGAN

From a Portrait taken in the summer of 1901 *by* H. S. MENDELSSOHN, *London*

J. PIERPONT MORGAN

KING OF THE TRUSTS

REFERRING to one of Mr. J. Pierpont Morgan's "deals" in British steamships, an American paper made the following remark:—"If the cable reports that J. Pierpont Morgan was swindled in the purchase of that steamship line are true, the man who did the swindling can make big money by coming over to this country and exhibiting himself." This is, in its way, strong testimony of the peculiar esteem in which Mr. Morgan is held as a financier in his own country. It is a popular belief in the United States that there is only one person who could possibly get the better of Mr. Morgan, and that is a certain gentleman who gained great notoriety in the fables of the sixteenth century, and was not unknown to Dr. Faustus. The name of Mr. Morgan is always on men's lips in these times. Hardly a day passes without there being articles in the newspapers setting forth particulars of some of his new financial captures, for he does not restrict his operations to his own country or hemisphere, or to any country, but practically takes the whole world within his mighty grasp.

MR. MORGAN'S CAGE.

It seems almost impossible in these days that any great enterprise should be launched—at all events in America—without having recourse to Mr. J. Pierpont Morgan, whose office is in Wall Street, where day by day more financial business is transacted than in any other single spot in the world. When Mr. Morgan is in New York, however, he does not shut himself off too closely from the public. He is the autocrat, of course, but is by no means of the inaccessible kind. He sits in the centre of a large business office, in what people have got to call a glass cage; that is, he occupies a position at a desk which is only separated from the rest of the office by a glass partition. Many a New Yorker strays into the bank for no other purpose than to have a look at the great man—to breathe the same air as the financial magnate; but sudden discomfiture is likely to befall any one who, without good and sufficient excuse, should attempt to trespass upon the money-spinner's time. As far as the mere seeing of him is concerned, however, it has been said that it is as easy to do that as it is to look upon the neighbouring spire of the old Trinity Church. There have been adventurous men who have boldly attempted to engage Mr. Morgan in non-business talk, and they have survived, but the experience has not been of a character to encourage them to try again. Interviews with Mr. Morgan have to be of the snapshot order—three minutes being considered a maximum period. He is short, and some say snappy, in his verbal methods. When a monosyllable will suffice, he would on no account be tempted into using a polysyllable. "No" is one of his favourite words. There are men who have a difficulty in giving utterance to this expressive negative, but J. Pierpont Morgan is not one of them; and when he says it there is no hesitation about it—you can't mistake it for anything else. That is decision of character, which is a strong point with Mr. Morgan. A man has to get straight down to solid facts with the financier; it is no use beating about the bush with him; and those who know him well say that he will devote no more time to a United States senator than to an ordinary broker. He has so much energy in his composition that he at times assumes an aspect of absolute ferocity. He is certainly aggressive, and no matter with whom he may be talking, it may be taken for granted that Mr. Morgan is playing the "first fiddle" part.

J. Pierpont Morgan

MONEY-SPINNING.

As has been proved time and time again, no money-making scheme is too great, no combination of industrial concerns too extensive or too numerous for him to grapple with, so long as there is money, and plenty of it, to be made out of the transaction; and this is how he has come to be the mainspring of the trust operations of America within the last few years. There are other mainsprings, but none that works at such a rate or provides the mechanism for so many workings as that of Mr. Morgan. He controls the destinies of more enterprises than any other living man. He may not be so rich as John D. Rockefeller, the Standard Oil King, at the present moment, or even as Andrew Carnegie; but he wields a greater power than either of them—a less restricted power, and one that is more widely in evidence. The railroads of America, the coal-mines of America, the steel-works of America, the steamship enterprises of America, and other American enterprises too numerous to specify, are more or less under the sway of this wonderful dictator, who when the twentieth century opened is said to have been in actual control of three thousand millions of dollars, with unlimited credit, not only in America, but in England and on the Continent—that is, he and his associates governed capital to that enormous amount. The Rockefellers, Carnegie, James J. Hill, the Vanderbilts, and all the big people of the country, are to some extent under his sway, and he thinks no more of making a profit of a few millions by a single stroke than others would think of buying or selling a few ordinary shares on the Stock Exchange.

MR. MORGAN'S BEGINNING.

It was not always thus with Mr. Pierpont Morgan, however; he did not arrive at his present eminence without having to go through some amount of struggle, and to exert himself, as others have had to do to arrive at success. Up to a certain point Mr. Morgan was concerned more with legitimate banking and the commission business than with the manipulating of stocks and shares, but in the immense developments that have taken place in connection with industrial and other enterprises in America of late years, he has been prompted to take a hand. Indeed, he is at present the great magnate of the financial world, and his goings and comings are chronicled with as much particularity as if he were the King of England, or the President of the United States.

Mr. Morgan's Father.

Mr. Pierpont Morgan inherited his banking concern and a fortune of £2,000,000 from his father, J. S. Morgan. The father was originally a farmer's boy, who changed that life for a clerkship in a draper's establishment, keeping at clerking until he was thirty-eight years of age, when it suddenly occurred to him that he might just as well be trying to do a little business on his own account. He then started a small commercial house in Boston, and stuck to this so diligently and ably that he attracted considerable custom, and rose to undoubted eminence as a banker. J. S. Morgan was a man of the highest financial ability and knew more of the money markets of the world probably than any other American of his time. He was a man upon whom his clients could implicitly rely. He would never advise them wrongly; never lead them into risky speculations; for the tricks and schemes by which unscrupulous adventurers in Wall Street made their *coups* and effected "corners" and forced panics, he had no affection; but for genuine banking business and all that relates to the general science of finance he had positive genius. Such a man was bound to make headway when once he had obtained a footing, and both in Boston and New York he soon assumed an influence in the financial world which secured him a large share of business. Whether he would have fallen in line with the larger and more adventurous operations of to-day or not had he been living now it is difficult to say. Perhaps not.

THE PEABODY PARTNERSHIP.

After devoting himself assiduously for five years to his work of building up a business, he paid a visit to London, where his reputation had preceded him, and making the acquaintance of Mr. George Peabody, was fortunate enough to impress that remarkable man with a high opinion of his business abilities. The result was the offer of a partnership, and the firm of George Peabody & Co. came into existence, Mr. Morgan being, of course, the "Co." A long career of success followed, and on the death of Mr. Peabody, whose splendid benefactions to the city of his adoption will always keep his memory green, Mr. J. S. Morgan became the head of the firm, the title of which was altered to that of J. S. Morgan and Co.

Mr. Morgan was in thorough accord with English banking methods, and during the years that he lived in London did so much to strengthen the credit of the United States in the English money market by his probity and business soundness that a greatly improved understanding and confidence between New York and London was established. This had the effect of largely increasing the volume of financial dealings between the two countries, and when, in 1877, Mr. Morgan returned to New York, to assume the direction of the New York branch of the firm's business, he was received with great honour. The leading business men of the city entertained him at a banquet, and the warmest tributes were paid to him for his services to the country in the great work he had done in London. It is said that the men present at the banquet represented wealth to the extent of £200,000,000. From that time onward for some years the house of J. S. Morgan & Co. was carried on with undiminished success, the son, the present J. Pierpont Morgan, having joined the firm, and given it the impetus of a rare energy and a thorough comprehension of financial affairs. The father died at Monte Carlo in 1890, since which date J. Pierpont Morgan has been the guiding head of the business, which has been greatly augmented by his clever management. Frank Drexel and Anthony Drexel were members of the firm for many years prior to their deaths, and each of them left an estate worth over £5,000,000. Like Mr. Peabody, all these men gave largely of their wealth to charitable objects. The Drexels gave over £1,500,000 for the founding of charitable institutions in or near Philadelphia, and Mr. J. S. Morgan was also a generous public benefactor, not only dispensing generous sums in charity during his lifetime but bequeathing a large sum to a college at his death.

GREAT UNDERTAKINGS.

It would be difficult to name any great American financial undertaking which J. Pierpont Morgan has not been, or is not, in some sort of touch with. In 1897, five great railways, representing a capitalisation of £100,000,000, were to a considerable extent under the control of Mr. Morgan. Even the Vanderbilt interests, commanding as these were, did not escape his influence. The five railways were the great Trunk lines between New York and Buffalo, at the foot of the lake system, and comprised the New York Central and West Shore combined; the Erie, reorganised; the Delaware, Lackawanna, and Western; and the Lehigh Valley. The result was that, whatever might be the competition of the great lakes, however low freight rates might become from points of production to the outlets at the foot of the lakes, from that point to New York there was no longer any competition. For the five hundred miles between Buffalo and New York, the five railroads named were all dominated by one strong hand and directed by one great mind—that of J. Pierpont Morgan.

One railway after another fell into Mr. Morgan's grasp, not through any deep-laid scheme or plot, but in the natural course of things. They got into difficulties, and only a financier of immense resources and high reorganising power could handle them; and if, in taking them under his control, he so arranged matters as to provide handsomely for himself and his own firm, he was only acting on recognised business principles. When the Reading Railway was hard pressed, Mr. Morgan acquired control of it, by which means competition between that road and the Lehigh Valley system was ended, and the financier obtained power over a perfect network of local lines throughout Pennsylvania, as well as over twenty per cent. of the hard coal mines of the continent. But the result was not to the public disadvantage. Important benefits were realised in regard to production, economy, price of product, and wages paid, and the Lehigh Valley road obtained an entrance into Philadelphia by way of the Reading line. Thus out of misfortune came good, and Mr. Morgan benefited the public while making money for himself.

Another vast combination of railway interests was effected by Mr. Morgan in his taking over a group of Southern roads, of which the Richmond and Danville was the chief; then he obtained a hold upon the Southern railroad, and upon the Baltimore and Ohio line, directly or indirectly. He was also in practical control of certain Western lines, including the Cleveland, Cincinnati, Chicago, and St. Louis, and what is known as the Big Four. He likewise captured the New Haven system, which covers a large section of New England territory. All the outlets to the sea from the west and northwest came under the influence and direction of Mr. Morgan.

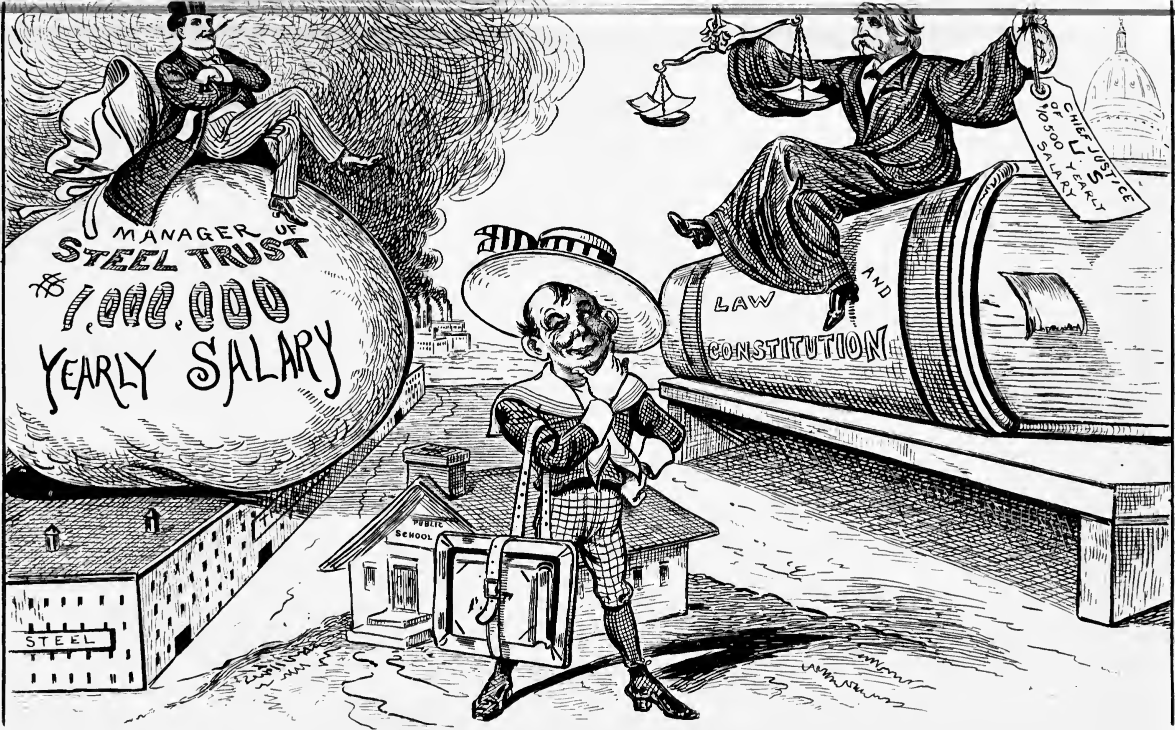
As a writer in the *North-Western Miller* pointed out, in the east Mr. Morgan "holds, as it were, in the hollow of his hand the destiny of this section, because of his ability to regulate the price of coal, the rate of freight, and, practically, the cost of food, and equally the cost of transportation of the finished product"; and he pertinently asks, "When, in the history of the world, has there been a mortal possessing as much power as Mr. Morgan does to-day?" That all these things should be within the grasp of one mind is one of the marvels of the time; but, as the writer mentioned remarks, "there are few men in the world more competent or more deserving of such great power than J. Pierpont Morgan."

It is, however, as a financier in the broader sense rather than as a manipulator of railways that Mr. Morgan mostly figures. When great American undertakings are in need of being helped out of difficulties, it is Mr. Morgan who is most probably appealed to, and if there is sufficient groundwork to build upon, and any basis of recuperation remains, he takes up the task of reorganisation with energy, and rarely fails, for he is not a man who is likely to embark upon impossibilities. Many industrial enterprises and many extensive trading schemes have been piloted from points of danger to havens of success by his timely aid; and it will be generally allowed that his present large fortune, which is probably not less than £30,000,000, has been much better earned than the fortunes of the majority of America's multi-millionaires.

THE GREAT STEEL TRUST.

Much as Mr. Pierpont Morgan has accomplished while the nineteenth century was still with us, he was destined to achieve still greater things before the twentieth century had been many months old.

The formation of the great American Steel Trust, with a capital of £229,000,000, is probably the biggest industrial deal that has been accomplished in the history of the world. At first it was difficult to see why Mr. Morgan should be connected with this amalgamation scheme at all. He had never been actively engaged in the steel or iron industries, and, it may be presumed, knew but little of them as far as their processes or management was concerned; but when one comes to think the matter over, it is clear enough why Mr. Morgan should have been called in to work out this tremendous scheme. It would have been absolutely impossible for one of the Steel Trust men—impossible even for Mr. Carnegie himself, great as he is, and respected as he is—to have brought all the concerns into alignment for amalgamation. Between steel men and steel men there would have been difficulties to overcome which would probably have


MANAGER OF
STEEL TRUST
$1,000,000
YEARLY SALARY
STEEL
PUBLIC SCHOOL
LAW AND CONSTITUTION
CHIEF JUSTICE OF U. S
$10500 YEARLY SALARY

YOUNG AMERICA'S DILEMMA

"Shall I be Wise and Great, or Rich and Powerful?"

After a Cartoon in "Puck." By permission of the Proprietors

wrecked the project; but left to the guidance of a financial expert such as Mr. Morgan, who would come into the affair like a magician out of a fairy tale, and with a few waves of his enchanted wand would bring all conflicting interests under the spell of his wonderful influence, the "deal" was capable of being accomplished. At all events, if he had been unable to work the affair into a successful organisation, then, indeed, it might have been regarded as an impossibility. The history of this gigantic transaction will some day be told in detail, and whenever the story comes to be unfolded it will contain abundant testimony to the immense power of brain of this magnate of finance. He had a tremendous advantage to start with. The Carnegie Company was ready to be used as the chief magnet wherewith to attack all the lesser enterprises. But Mr. Andrew Carnegie had to be dealt with first. He held over £17,000,000 worth of the company's stock, the par value of which was £200 a share, and which had actually been worth half as much again, and a price had to be agreed upon to be paid to the great ironmaster. But the difficulty was surmounted somehow, and Mr. Andrew Carnegie walked out of the concern he had founded and which bore his name with a sum, payable partly in cash and partly in bonds, which it is expected will yield him an annual income of between two and three million pounds. When this arrangement was come to it only remained for the seven other companies which were to be included in the trust to be brought within the scheme on terms that would make profit winning easy to all concerned. These seven companies included the Federal Steel Company, with an authorised capitalisation of £40,000,000; the American Steel and Wire Company, with £18,000,000 of capital; the National Tube Company, with £16,000,000; the National Steel Company, with nearly £12,000,000; the American Sheet Steel Company, with over £10,000,000; the American Tin Plate Company, with £10,000,000; and the American Steel Hoop Company, with over £6,000,000. It was a great stroke of business truly—equal in its way to the achievement of the statesman who brings a number of independent states under one governmental head and consolidates them into an empire.

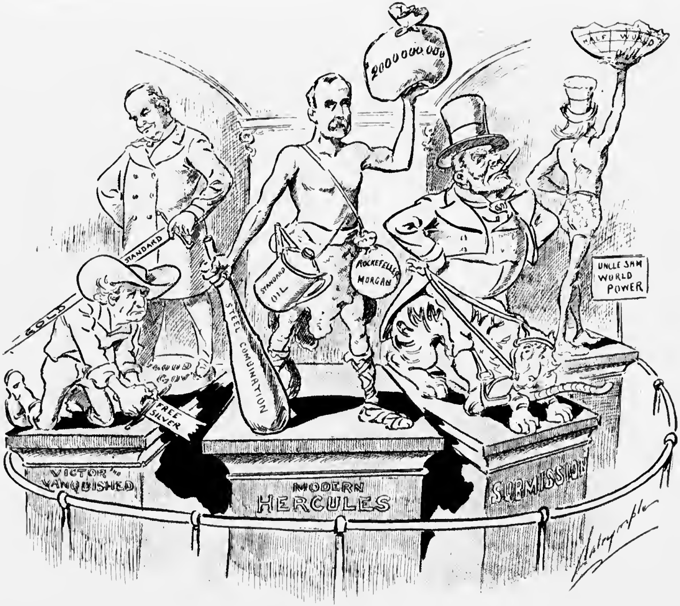
FRESH FIELDS.

When this great combination was brought about some people imagined that Mr. Morgan henceforth was going to devote his time to the working of the steel trade, but nothing was further from Mr. Morgan's mind. After he had accomplished the deal and put the requisite machinery into operation for its effective carrying forward, his own particular task was practically completed. Not that he ceased to have a controlling interest in the concern, but simply because, having placed the affair on a secure business footing, it is sufficient for him now to bestow an occasional glance at what is being done. So he betakes himself to other undertakings.

Since the great steel combination was formed Mr. Morgan has effected another amalgamation which has caused a great stir in the world, having brought the Southern Pacific and Union Pacific Railways into working association during the spring of 1901. This has had the effect of placing the Vanderbilts in practical control of those two gigantic railway systems. Here again Mr. Morgan has been the manipulator-in-chief.

BUYS BRITISH STEAMERS.

Then Mr. Morgan came to England and made a capture of the Leyland and Atlantic Transport fleets, which has had the effect of putting him and his associates in control of a line of steamships which may be expected to be turned to good account in the matter of regaining for America a goodly portion of the American steamship traffic. With so many holdings in railways and steamer lines Mr. Morgan would almost seem to hold the reins of transportation over a great portion of the world. One enterprise is made to dovetail with another, and he is able to control the cost of transportation to and from the great steel and other industrial works which have come


2000000.000
HALF WORLD
GOLD
STANDARD
SOUND GOV'T
FREE SILVER
STEEL COMBINATION
STANDARD OIL
ROCKEFELLER MORGAN
N.Y.
UNCLE SAM WORLD POWER
VICTOR VANQUISHED
MODERN HERCULES
SUBMISSION

PAN-AMERICAN SCULPTURE;—NATIVE EXHIBITS

From "Puck." By permission of the Proprietors

under his sway in a manner that would scarcely have been imagined possible a few years ago.

Mr. Morgan is, however, much more than a mere successful handler of capital. He is a man with many interests apart from business, and has a high reputation for generosity, though he at all times objects to having his charitable deeds noised abroad. In 1899 he secretly gave £5000 for the installation of the electric light in St. Paul's Cathedral, London, and his charities in his own country are both numerous and large. Not long ago he contributed £200,000 to the New York Lying-in Hospital for the construction of a new building.

Away from Business.

Mr. Morgan is all activity, and is always busily engaged either in connection with some of his manifold money transactions or in some of the lines of relaxation which call for energetic effort.

He is a great yachtsman. His famous yacht the *Corsair*, it may be remembered, was sold by him to the United States Government for use during the Spanish-American War, in which conflict, under the transformed name of the *Gloucester*, it did much effective work at Santiago. Mr. Morgan is a Commodore of the New York Yacht Club, and spends a great deal of his time on his later yacht which he had built to succeed the *Corsair*. He is also artistic in his tastes, and has not only a valuable collection of paintings, but owns a library which includes many rich and costly books. One of his most recent art purchases was that of Gainsborough's famous "Duchess of Devonshire," for which he gave £30,000 soon after that celebrated work was mysteriously recovered from its long hiding in America. He is fond of dogs, and owns a large number of very fine animals, his particular fancy being collies. It may be added that Mr. Morgan is also a great smoker, and in this direction probably indulges in more downright luxury than in any other; his cigars, indeed, are said to cost him about six shillings apiece, being made of the very best tobacco, of course, and rolled for him specially by an expert.

RESTLESS RESTING.

When on the European side of the Atlantic Mr. Morgan frequently slips away to some quiet place in France, and is very fond of Normandy, sometimes staying for long periods in the quaint old town of Dinan. An amusing story is related of him in connection with one of his visits to Dinan. He employed a local photographer to develop a number of views that he had been taking with his camera, but the photographer did not know the financier and hesitated whether he should complete the work or not before having some assurance that he was going to be paid for it. So he went down to the local bank and asked the manager if he happened to know anything about a gentleman named Morgan.

"An American ?" asked the manager.

"Yes," replied the photographer. "Mr.—what is it ?—ah, Pierpont Morgan."

"Precisely," replied the manager. "Well, we know all we want to know about him."

"Oh, monsieur, will it be safe to trust him for three hundred francs ?"

"Trust him !" cried the banker, "trust him for anything and everything he takes it into his head to dream of."

Of course, after that the photographer returned to his little shop and told his wife that he thought they might proceed with the work on Mr. Morgan's plates, and the next day when Mr. Morgan came he ordered dozens of prints and some big enlargements, and then remarked as he was a total stranger it would perhaps be best for him to leave a deposit on future orders, and he took out an enormous roll of money and laid down a thousand-franc note. After that his fame spread about the country side, and people used to sit up at nights to talk about him.

When out in these remote districts of Normandy Mr.

Morgan makes himself very friendly with the country people, stops at the farmers' houses frequently, and has long chats with the old people, now and then picking up some old Norman carved panels or curios, and dealing handsomely by the people from whom he purchases them.

"How much do you want for this, madam?" he will say.

"It's not for sale," the woman will frequently answer.

"How much will you take for it?" he will insist.

"Oh, it isn't worth anything," the old woman will protest, not knowing of course who her visitor is.

"I want to buy it," he will go on.

"But, monsieur, it isn't for sale."

"Oh yes, it is," he will say; "here's a thousand francs." And off he will trudge, leaving the woman astounded.

PERSONAL TRAITS.

With regard to Mr. Morgan's personal appearance, it may be stated that he is of middle height, thickly set, possesses a piercing grey eye, and, as one of his friends expresses it, "has a jaw like a steel trap." He was born in 1837.

He dresses well, but not foppishly. A man with so many affairs to look after as Mr. Morgan has cannot spare time for the consideration of mere externals. At his club, or on board his yacht, he loses some of his absorbed air, but even then he is thinking away from his immediate surroundings most of the time. He is essentially an emergency man. Just the one to appeal to when some knotty complication wants unravelling. He grasps the situation in a moment, and decides what is best to be done before the ordinary man has had time to get a rough idea of the *pros* and *cons*. And it all comes easy to him. The most befogged matter of finance does not worry him. If there is a way through he sees it; if there is not he sees that too, and drops the business without an instant's hesitation.

As an instance of his alertness, mention may be made of his short way of dealing with a recent strike. Mr. Morgan has enormous interests in the anthracite coal regions of the United States, and the strike affected the money market. More than that, it affected the course of politics. The miners when in work are Republican, when out of work they swerve to the Democratic side. This little matter was a thorn in the side of Mr. Mark Hanna, the campaign-manager for Mr. M'Kinley, and he waited upon Mr. Morgan to urge him to take immediate measures for ending the strike, for the sake of securing the votes of the miners for M'Kinley. Willing to oblige his friend the campaign-manager, Mr. Morgan summoned a hasty meeting of coal-proprietors, and then sent Mr. Hanna in to address them, knowing full well that the coalmen would adopt the conciliatory plan of settlement that the politician would advise. Mr. Morgan, however, did not attend the meeting himself, but remained outside to look after a little business of his own, which was to anticipate the influence of the result by setting his agents on to buy up every coal share that they could lay their hands on. Of course, when the news of the settling of the strike was telegraphed throughout the country the coal shares leaped up amazingly, and Mr. Morgan, by thus taking time by the forelock, netted a few million dollars by the transaction.

About this time a priest, famous among the miners, had an interview with Mr. Morgan on behalf of the men. He went to plead, and came away mesmerised. "I have seen many wonderful sights in New York," said the priest to his friends after his return home, "but Morgan is the most wonderful thing I have ever seen in my life."

SIR HIRAM S. MAXIM

From a Portrait taken in 1900 *by* ALEXANDER BASSANO, *London*

SIR HIRAM MAXIM

THE MAN BEHIND THE GUN

In the last batch of honours conferred on distinguished men by Queen Victoria appeared the name of Hiram S. Maxim, who was made a Knight, in recognition of his services as an inventor of weapons of warfare, and especially, it will be presumed, as the author of the automatic machine-gun which bears his name. This death-dealing instrument, which has been used with such terrific effect upon recent battlefields, was the means of establishing a new departure in the mechanism of war. It represented as great a revolution in gun-construction as the Armstrong gun of an earlier period had done. It was therefore in the natural fitness of things that the inventor should receive some titular distinction. Perhaps, had he not been an American, he would not have had so long to wait for the title. Be that as it may, he is now Sir Hiram S. Maxim, Knt., and no one in England will grudge him the honour, he being now a naturalised British subject, actively engaged in the direction of one of our most important industries.

Hiram Stevens Maxim was born in 1840, in the picturesque village of Sangerville, a remote place hidden away among the woods of Piscataquis County, in Maine, and the patriarchs now living there, who remember Hiram's boyhood, have many interesting stories to tell of his early life and adventures, his love of fun, and his queer mechanical contrivances. The surroundings of his youth might be considered favourable to the development of inventive genius. Hiram's father, Isaac Maxim, was a miller and also had a turning-shop, and it was amongst things mechanical that the future inventor spent the days of his boyhood. He early became acquainted with the working of machinery and mechanical appliances. A boy of an ingenious turn can always find something to employ his skill upon, no matter where his lot may be cast, and even in Sangerville there were toys to mend, carts to repair, implements to improve upon, and so forth, and for his dexterity in these matters he acquired quite a reputation in the little farming community. He also invented a gun, a juvenile Maxim, the forerunner of the wonderful war-weapon that was to follow, but as it was only for shooting peas it was not necessary to take out a patent for it.

A MASTER OF THE "JACK-KNIFE."

Those were not the days of free libraries or of the dissemination of popular literature, so young Hiram Maxim had simply to read what he could get hold of, which was not much. The book that seems to have made the most impression upon him at this period was Comstock's "Natural Philosophy," which his father brought home one day, and, while other boys were reading Captain Marryat and Fenimore Cooper, Hiram was devoting himself heart and soul to Comstock, which he mastered sufficiently to be able to work out many scientific problems, especially such as concerned nautical affairs, for which he had a strong leaning. His chief tool in those days was the homely "jack-knife," with which he performed feats of dexterity that greatly surprised the neighbours.

THE MILLERITE FOLLY.

A cloud fell over the Maxim homestead while Hiram was still very young. The father, who was naturally of a thoughtful turn, much given to musing concerning the mysteries of existence, became a convert to Millerism, one of the many new religions that were then being piloted round the country places of New England. In some respects it was worse than Mormonism, its effect upon its adherents being to put the brake on all exertion, whereas the followers of Joseph Smith had an incentive in the opposite direction. The leading article of the faith of the Millerites was that the world would be destroyed on a certain early date, when every living soul would perish except such as had enlisted under the banner of Miller, and they would be carried straight to heaven from the top of a local hill. It was a great falling off from the simple dignity of the old Puritanism in which the Maxim ancestry had been reared to the fantastic religious foolery of the Millerites; but Isaac Maxim succumbed to the lesser faith, and, while under its influence, his business did not get the attention that it had formerly done. It was a fortunate thing that the last day, as fixed by Miller, was not far off. The people prepared their ascension robes, and rested their hopes so completely on the translation being effected on the day named, that they neglected their worldly affairs, ceased to make provision for their families, and simply prayed and waited. Thus Isaac Maxim's religious frenzy was, while it lasted, a serious drawback to the family's prosperity, and was not at all conducive to the growth of mechanical ideas, although at that time Hiram Maxim was hardly old enough to make much headway even had the opportunity presented itself. The atmosphere was cleared a little later on, however. The day of the promised ascension came; the Millerites assembled, waited in hope, fear, and trembling for the striking of the hour of doom, and lo! the heavens didn't open, their wings didn't sprout, no flying-machine of Maxim or celestial invention put in an appearance; nothing occurred, indeed, except that the world went on just as before; the only thing that was destroyed being the imposture called Millerism. After this disillusionising Isaac Maxim turned to his work again, honestly trying to make up for lost time by a wise increase of energy. So, what with occasional farm-work, occasional wood-turning, and occasional schooling the boy grew up to be a sturdy, vigorous youth, and at the age of fourteen he was put apprentice to the coachbuilding business at East Corinth.

A STEP UP.

This was a step up, though not one exactly to the lad's liking. In the constructing of a coach there were no difficult mechanical problems to solve. No particular art or mystery was involved. The essential parts of a road vehicle remained the same from generation to generation. Hiram Maxim had higher ambitions, and at the end of six months, worn out by hard work and still harder living, he gave the job up and went back to his father at Sangerville. For the next six months he resumed attendance at the village school, never neglecting any opportunity to increase his store of knowledge. His father was still anxious that Hiram should become a coachbuilder, and ultimately arranged with a Mr. Flynt, of Abbot, Maine, to take the lad into his service. Mr. Flynt's works were a great improvement upon the East Corinth establishment; the machinery was more extensive and more efficient, and there was something to be learned there. All the same, the employment was uncongenial to Hiram, and after remaining at it for nearly four years to please his father, he at last came to the determination to abandon it to please himself. He had not yet discovered his *metier*, but whatever it was, it wasn't coachbuilding, of that there could be no manner of doubt. There was no outlet for his inventive ability in helping to build the bodies and frames of carriages, buggies, and waggons; still he contrived to invent while with Mr. Flynt, if only for his own amusement. He invented a thing on wheels in the shape of a tricycle, which was almost unbreakable, and on this he used to dash down the country lanes of Maine at a pace that startled the farmers as they leisurely passed to and fro. It is claimed for this machine that it was the first cycle ever seen on the American continent, having two rows of spokes and a suspended hub, the same as the cycles of to-day.[1] In the winter time he stayed away from the Flynt establishment and remained at home, schooling, helping his father, and so on, but never resting. He was an indefatigable worker, and as active with his brain as with his hands. His father had a grist-mill, which had "three run of stones," and occasionally Hiram took the night turn at grinding fodder, which was hard and heavy work, and, as he himself says, did more to develop his shoulders and muscles than anything he ever did in his life. He adds, "the following spring I looked more like an acrobat than a mechanic."

---

[1] There has been a great deal written in the public press regarding this first tricycle with its remarkable wheels, and, among other things, it has been stated that the machine was destroyed and its inventor thrashed at Sangerville village by

STEADY PROGRESS.

Then Hiram Maxim began his "wanderschaft," going first to Dexter, where he became foreman in some carriage works; then he drifted to Northern New York, and gained valuable experience in a threshing-machine factory; and later on, in about 1863, he engaged himself as a common hand in the machine works of his uncle, Levi Stevens, at Fitchburg. Here he was in his element. He got into touch with various branches of mechanical engineering, and began to acquaint himself with all that was going forward in the world of scientific and inventive development. The experience he obtained at Fitchburg formed the foundation of his after success. He soon became an expert at the bench and at the lathe, mastering all the details of the business, even to mechanical drawing, in which he grew exceedingly proficient. From Fitchburg he proceeded to Boston, where he undertook the position of foreman in the philosophical instrument factory of Oliver P. Drake, accumulating fresh scientific knowledge at every new point that he touched. He next went to New York, entering the service of the Novelty Ironworks Steamship Building Company, the largest of the kind in the United States at that time. Here he acted as draughtsman; was well remunerated, and saved money—saved sufficient, indeed, to be able to buy a

---

one "Uncle Eli." Now, as a matter of fact, the tricycle was never at Sangerville village, and there is no one in any way connected with it or living about Sangerville of the name of "Uncle Eli."

house and farm for his father, as well as to make some little provision for himself.

LIGHTING INVENTIONS.

It was now that Mr. Maxim began to assume the rôle of an inventor with an earnestness of purpose that promised high achievement. He devoted all his spare time to studying scientific works and making experiments, and it was not long before the records of the American Patent Office began to chronicle his name in connection with inventions of one kind and another. One of the first subjects to attract his attention was that of lighting, a gas-generating apparatus of his being patented in 1871; but it was not until 1878 that he appeared in the list of inventors of improvements in electric lamps, filing at Washington in that year one of the patents which made incandescent electric lighting possible. When once he had fairly entered the domain of electricity he did not let the grass grow under his feet, but pushed along from invention to invention with astonishing rapidity, bringing out improved dynamo-electric machines, processes for flashing electric carbons, and the standardising of carbons for electric lighting, and apparatus for exhausting the air from electric lamps. He was one of the first to recognise the value of carbon conductors for incandescent lamps, and devised commercial processes for the efficient production of such carbons. Then followed the Maxim electrical regulator, by which the current was controlled by changing the position of the dynamo brushes; and about the same period he discovered the possibility of passing both a positive and a negative current through the same wire, which seems to have been the first suggestion of the feasibility of the three-wire system, afterwards patented by Edison and Lord Kelvin. In 1880, the first arc lamp ever used in New York for open-air illumination was patented by Mr. Maxim, as well as a system of electric-lighting regulation in which the control was effected from the centre of the illuminated district instead of at the generating station.

A writer in *Cassier's Magazine* had the following reference to the inventor's versatility in connection with electrical matters: "As soon as the manufacture of incandescent lamps became a recognised industry, a great demand developed for the supply of phosphoric anhydride, which was employed for extracting moisture from the gases in the pump. Originally this substance was obtained from Germany at a high price, but by Mr. Maxim's process, patented in March 1881, the cost was largely reduced, and the product was of a better quality. His invention was the means of making the anhydride at the rate of one-half pound per minute, and resulted in a revolution of the earlier methods of manufacture."

A Busy and Troubled Time.

This was an anxious as well as a busy time for the future Knight. There were so many inventors at work in the realm of electricity that they often got their inventions across each other's lines of action. That was inevitable, but it led to much costly litigation, and engendered a good deal of bitterness of spirit. Several times Mr. Maxim and Mr. Edison were in direct opposition. Mr. Edison tried to set aside Mr. Maxim's system of electric-lighting regulation, but in vain. Later on, after Edison brought out his "first platinum lamp," with its safeguard against overheating, whereby, when the platinum became too hot it expanded and shunted the current through a resisting coil in another direction, Maxim's previous lamp patent was put in evidence, and the courts decided four times over—on a first trial and on three subsequent appeals—in Maxim's favour.

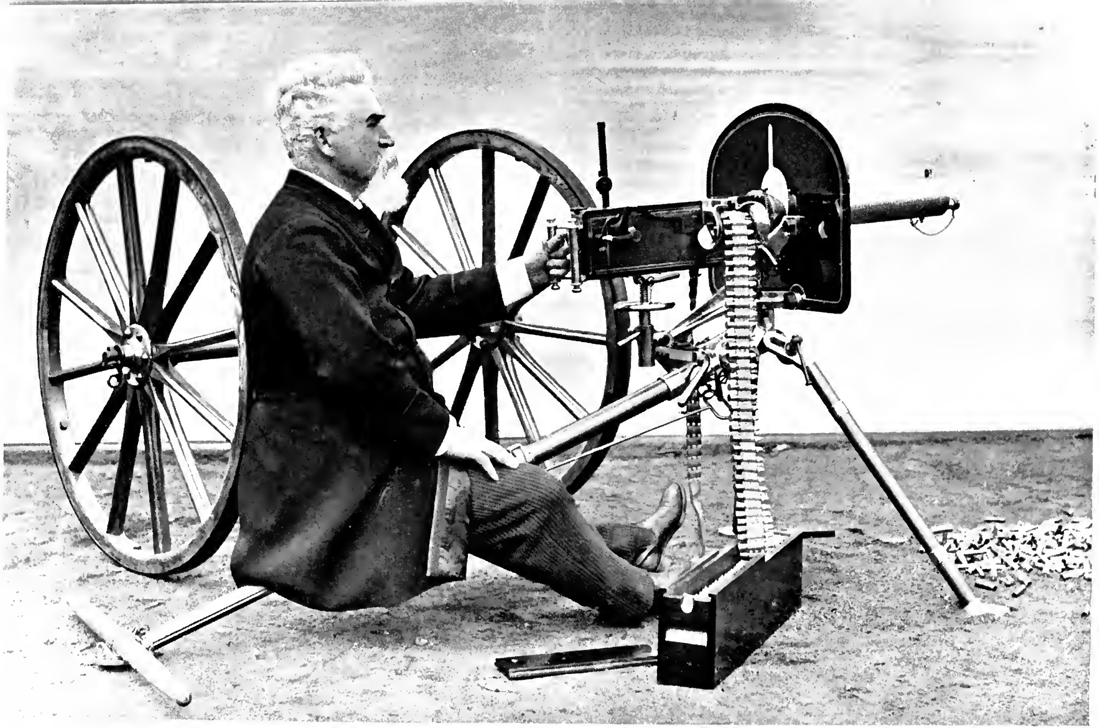
It was in 1882 that Mr. Maxim patented his famous electric regulator, by which, no matter how many lamps were on the same circuit at any given time, the amount of current supplied to each was always uniform. For this invention Mr. Maxim had conferred upon him the decoration of Chevalier of the Legion of Honour by President Grèvy. Before this Mr. Maxim had paid a visit to Europe, with the object of studying the conditions of electrical invention and application in England and France, and the encouragement he received inspired serious thoughts of his ultimately settling on this side of the Atlantic. The idea grew upon him, and in 1883 he came to London as the representative of the United States Electric Lighting Company, since which period he has continued to reside in England.

THE WORLD-FAMOUS MACHINE-GUN.

Then came the period of the automatic machine-gun. Many stories have been told regarding the origin of the idea of this gun. Some say that the notion was in the Maxim family before Hiram was born; that it was a thing of hereditary descent that his father had inherited and nursed for years without being able to do anything with it because of imperfect mechanical knowledge, and that Hiram, as the eldest son, succeeded his father in the possession of it.

It is evident that there could be no truth in this; in fact, an automatic gun would be impossible without metallic cartridges, and these did not exist at that time. The father of Sir Hiram Maxim had an idea of making a quick-firing gun many years ago. This was before metallic cartridges were invented. The gun was to have a single barrel and a revolver feed, but instead of being cocked with the thumb and fired with the finger, he contemplated placing a loop lever beneath the arm, and so arranged that by pushing the lever down it cocked the hammer and fed the chamber into position. On drawing the lever back into position it liberated the hammer and fired the chamber. It resembled to some extent a self-acting revolver, with a Winchester rifle lever, but was proposed long before such arms were known. This gun was never made, but the idea was not in any sense an automatic gun. An automatic gun is a gun that loads and fires itself by energy derived from the burning powder, and the Automatic System of Firearms is wholly and completely the invention of Sir Hiram S. Maxim.

Another story is, that after the Civil War Hiram Maxim



Sir Hiram Maxim firing Rifle Calibre Maxim Gun

was firing a soldier's rifle, when the recoil of it suggested the notion of utilising the recoil to load the arm; and although this was the first suggestion, the problem was worked out in the ordinary course of his scientific thinking, and finally an apparatus was made to show that it would be possible to construct a gun that would load and fire itself.

It has been going the round of the American papers recently that Mr. Hiram Maxim borrowed a hundred dollars, and made his first automatic gun in the States; that he offered it to the United States Government, who refused to have anything to do with it, and that he then brought it to England, where it was adopted into the service.

This story from beginning to end is a complete and absolute falsehood. The automatic gun was invented and made in England, and was adopted into the British service a long time before it was ever exhibited in the United States. Mr. Hiram Stevens Maxim brought a large sum of money with him to England, bought an English estate, and also purchased shares in the great Steel Company of Vickers, Sons, & Co. The further he advanced with his experiments the more he was convinced of the value of his invention. It was not such an easy matter, however, to get other people to believe in it. He patented his idea, and set up a gun factory in Hatton Garden in 1884. There were other machine-guns in the field, but no automatic guns, therefore Mr. Maxim thought he had "gone them all one better," and set to work to bring his invention before the notice of the Government. He was a clever enough man of business to know that there was more to be made out of a successful automatic gun in England than in his own country. As he argued, "America is not a fighting country; there they will only require about twenty machine-guns in a year." So he settled down in England, and for a time had to contend with difficulties and obstacles which few would have had the energy to overcome; but from the first he was a fighter, and always went through with anything that he took in hand. And he persevered with his gun, never resting until he had his idea fully embodied in perfect mechanism, patented, and ready for its work. How well he succeeded is now a matter of history. The Prince of Wales and the late Duke of Edinburgh visited the Hatton Garden Works to inspect the new gun, and at a demonstration at Hythe, when a number of machine guns were put in competition, the Maxim automatic gun easily surpassed all others in rapidity and accuracy of firing, discharging some seven hundred shots per minute, each shot striking near the centre of the target. No other gun was at all to be compared with it.

A Stroke of Inventive Genius.

The Maxim automatic principle of making the recoil of the gun perform all the functions of loading and firing is adopted by all European nations. Previously, all guns became unloaded as soon as the trigger was pulled; but by the Maxim system, whereby the act of firing reloads the gun, firing and reloading are simultaneous, and as long as there remains a cartridge in the magazine-belt the Maxim is loaded. It was a masterly achievement, and caused considerable sensation, its inventor being called upon to exhibit it in most of the European capitals, before rulers, princes, military authorities, and scientific experts, all of whom pronounced the same verdict upon it, declaring it to be the most deadly instrument of warfare the world had ever seen. The position that Mr. Maxim held was that of being supreme in this particular branch of invention. He protected himself by patents in every country, patenting not only the particular method of recoil adopted by him, but every other conceivable method of applying it—by the impact, by the pressure of the gases, by the vacuum produced behind the bullet, and so on—holding a great variety of patents covering this subject, for, as has been said, Sir Hiram Maxim is a man of business as well as a man of invention, and is seldom to be caught napping. It must have been a good thing to be his patent-agent in those days.

"ALL THE YEARS INVENT!"

A great achievement like the Maxim automatic gun meant fame and fortune to its creator, and one would almost have expected him to have rested and been thankful after he had seen it adopted in almost every country of the world; but once an inventor always an inventor, and it was not in Sir Hiram's nature to stop inventing—it would have been as easy to have stopped thinking. Indeed, the one state of mind merged to such an extent with the other that with him thinking and inventing might be regarded as synonymous terms. For him, "all the years invent," as Tennyson told us, and few inventors have embraced so wide a field in their inventing as Sir Hiram Maxim has done.

THE GUN-MOUNTING PATENT.

In 1886 his gun-mounting patent was taken out, and this he considers to be one of his "greatest hits." It provides for the hydraulic buffers and springs moving with the gun; and as the trigger handle and the shoulder-piece are attached to the non-recoiling part of the gun, the same as the trunnions, the gun (without trunnions) slides back into the case at the instant of firing. In 1885 he introduced his apparatus for training large guns by electrical means, enabling the heaviest guns to be handled with perfect ease.

SMOKELESS POWDER.

Another Maxim invention is a projectile that prevents the passage of gases on the discharge of a gun, thereby preventing erosion which so greatly shortens the life of a cannon, but this, as well as many other inventions of his that may have a future in store for them, has not yet made its way into general acceptance. It is otherwise with Sir Hiram's smokeless powder invention. That has not only been widely adopted, but several other inventors claim to have made the same or a very similar discovery. Sir Hiram's position in the matter may be set forth in his own words. "Some years ago," he says, "Mr. Robert Symon asked me to get out a new smokeless powder, but I said, 'there are a great many men in England who are much better chemists than I am, and some of the best of these are already thinking of the subject. Some of the greatest chemical experts on explosives are in the employ of the Government.' Mr. Symon said, 'That may be true, but you understand perfectly all the chemistry which relates to explosives, and, moreover, you have an imagination, and the others have not. Now, you are going to Austria; think out in the train how a smokeless powder should be made, and everything about its composition and manufacture, and when you have arrived there write me that you have done so and how to do it.' I did so, and when I returned to England made cordite. The composition is tri-nitro cellulose and nitroglycerine, modified by a small quantity of oil, which renders the powder non-detonating. Flame, produced by a fulminating cap, is required to explode it. Professors Abel and Dewar took out several patents for a smokeless powder, but they were all dated after my applications." Some years ago in the great Cordite case in which Nobel sued the British Government for infringement of patent, Sir Richard Webster, who represented the Government, repeatedly asserted that Mr. Hiram Maxim was the first man in the world to combine nitroglycerine and gun-cotton in a smokeless powder. This was borne out by the evidence, and it must be remembered that at this trial every patent that dealt with the subject at all was carefully gone into and examined. An examination of the records will show that during the trial the name of but one American was mentioned as having done anything original in smokeless powder, and that was Hiram Stevens Maxim.

THE HERR DÖWE EPISODE.

Some years ago a German-American bar-keeper, masquerading as an American captain, brought a German tailor to London, and claimed that they had a bullet-proof coat. The coat, however, was nothing more or less than a small rectangular shield something like a cushion and about four inches thick. It was said that this consisted altogether of fibrous material and would stop any bullet. It was exhibited before a high official and his staff, and before many other distinguished persons.

It was the practice of Herr Döwe to place this shield on his breast and to be fired at with a military rifle. At the very beginning a sheet of paper was placed on the front of the shield and bent over the top at a square angle. This paper was taken to Mr. Maxim. It may not be generally known that bullets produce a certain splash which depends altogether upon the kind of metal that they strike. That is, if a piece of metal is concealed, the splash of the bullet would indicate the kind of metal that is employed. The splash cut certain holes in the paper which revealed to Mr. Maxim that the shield was a piece of very smooth and very hard steel, and that it was placed about two and a-half inches from the front surface of the shield. At that time the shield was being exhibited at the Alhambra before crowded houses. It was a nine days' wonder, and Herr Döwe and the American bar-keeper offered to sell the secret to the British Government for £400,000.

When the excitement was at its height Mr. Hiram Stevens Maxim wrote what he intended for a humorous letter which appeared in the London *Times* and other papers.

He did not believe any one would take the letter seriously. He simply announced that he was very jealous of Herr Döwe, but he thought that we should be able to produce quite as good results in England as were produced by the German tailor whom he referred to as Herr Schneider. He said that he had been studying the subject himself, and after three hours of sleepless investigation, and the expenditure of half-a-crown in money, he had succeeded in making a shield which was more effective than Herr Döwe's; that whereas the Herr Döwe shield weighed 12½ lbs. to the square foot, he had constructed one that only weighed 10 lbs., and that he would exhibit this shield at a certain time and place, and would dispose of the secret for 7s. 6d. cash. A great number of people took this offer seriously and believed that Mr. Maxim had invented a *bonâ fide* bullet-proof coat, and the people who visited the exhibition were only limited to the number that could obtain passes by the railway.

Arriving at the destined place Mr. Maxim said he had provided himself with the necessary scientific instruments, which consisted of a carpenter's two-foot rule and of grocers' scales. Interested parties could weigh and measure the shield and fire at it themselves. As a matter of fact the Döwe shield contained a piece of three-eighths of an inch chrome steel, and Mr. Maxim's shield was of nickel steel, and only ¼-inch thick. At first the newspaper reporters did not understand the joke. They all combined, and gave what they called a "slating" to Mr. Maxim. However, forty-eight hours after the event, they saw the joke, and invited him up to London to a dinner, assuring him that he was the only sensible man of the lot.

Afterwards it became known to everybody that in firing at the Döwe shield one was only firing at a piece of armour-plate concealed in a cushion.

THE FLYING-MACHINE.

There is still another invention with which Sir Hiram Maxim's name will always be notably associated, and that is his flying-machine. Most people are inclined to look upon inventions of this class as beyond the domain of practical utility, and they are not without excuse for this attitude, inasmuch as the entire record of flying-machines, extending back to times of remote antiquity, is one of unrelieved failure. As there never has been a successful flying apparatus they conclude that there never can be one. The idea is regarded as a craze, coming within the same category as perpetual motion, forgetting that Nature has many flying-machines but no perpetual motions. Many excellent men have considered the notion a feasible one. The famous Marquis of Worcester included an apparatus of the kind in his "Century of Inventions." It must be admitted, also, that many things of more seeming impossibility have been realised within the last hundred years; and, it may well be imagined, that when once a man of invention bends his thoughts in such a direction there must be something intensely fascinating in the task. Sir Hiram Maxim, however, is no mere dreamer. The flying-machine is not simply a creature of his fancy, but a solid, demonstrable fact, and whatever may be the ultimate outcome of it—whether it be destined to give wings to man, enabling him to speed through the sky like a bird, or whether it will have to be relinquished as the clever failure of a clever man—it will still have to be said of it that it is by far the best attempt that has hitherto been made to solve this thousand-year-old problem.

Sir Hiram Maxim has faith in the flying-machine. He is convinced that it is one of the certainties of the future—not the distant future, but the immediate future. And Sir Hiram is a practical man, not given to speaking without thinking. He also knows the value of money, and is not given to expending large sums on useless experiments. Yet, the inventor of the automatic gun has devoted many years, off and on, to the working out of this idea, and has spent from £20,000 to £30,000 upon it. And what, it will be asked, has he achieved?

THE PROBLEM OF AERIAL NAVIGATION.

He has constructed a machine, ship-like in form, supplied with screws attached to a propeller shaft, and aeroplanes, which, when all set, have an area of from 4000 to 5000 square feet. The screws are operated by a pair of compound engines. The fuel is naphtha. The motors are compound engines, capable of a joint development of nearly 400 horse-power, but weighing only 600 lbs., or less than 2 lbs. per horse-power. There are two high-pressure cylinders, five inches in diameter, and two low-pressure cylinders, eight inches in diameter. They are double-acting, have a common stroke of twelve inches, and a piston speed of 750 feet per minute. The entire machine, with full equipment of fuel, water, and men, weighs less than 8000 lbs., and has a lifting capacity of over 10,000 lbs., while running at a speed of forty miles an hour. Still, in spite of the extraordinary step in advance that Sir Hiram Maxim's invention represents, in spite of the disinterested commendation of such eminent men of science as Lord Kelvin, Lord Rayleigh, and Professor Boys, all of whom have borne personal testimony to the importance of this contribution to the art of mechanical flight, the practical flying-machine is not yet an established fact. If mechanism could have accomplished it, it would ere this have been realised by means of Sir Hiram Maxim's machine; but the intangible air is a difficult realm to work in, affording no foundation for machinery to rest or work upon, and being in itself powerless to give floatage to bodies heavier than itself. Even the balloon as yet falls far short of being a thing of ready practicability, although as an adjunct of war it renders undoubted service. Still, to one who has so greatly outstripped all predecessors, as Sir Hiram Maxim has done—to one who, for the first time in the history of the world, has succeeded in producing a flying-machine that could raise itself from the earth by its own contained power—the remaining difficulties probably do not seem insurmountable. The brain that has devised the means of rising in the air by mechanical action will not despair of discovering a method of steering, as well as a plan of securing what navigators call "an even keel," and then the whole problem is solved. It is Sir Hiram Maxim's conviction that this result will be attained. He says, "Aerial navigation is a certainty of the immediate future, whether I succeed or not." With him it is no offspring of fancy, no poet's dream, no Arabian Nights' enchanted carpet, but a pure scientific deduction, founded on actual knowledge and experiment.

Sir Hiram Maxim, as most people know, is connected with the great firm of Vickers, Sons, & Maxim, engineers, and at their works the Maxim guns and other specialties with which Sir Hiram's name is closely identified are manufactured in large quantities. Sir Hiram Maxim is in the prime of middle-age, and as full of inventive vigour as ever. He is busy with ideas of large scope and importance, and has many mechanical surprises still "up his sleeve." In his varied career as an inventor it has been his good fortune to have found an able, intelligent, and gracious helpmeet in Lady Maxim, whose bright personality and resourceful pen have done much to lighten the inventor's labours. Lady Maxim is as much at home in exercising her talent in aiding her husband in his work as in sustaining the rôle of hostess in the social functions which their hospitality imposes upon them. She wins distinction in both capacities.

⁂ In the Appendix mechanical details are given of the Maxim gun.

LEVI Z. LEITER

AN AMERICAN NABOB

NEARLY fifty years ago, three young men who had been following humble farming pursuits in different parts of America came together in Chicago, resolved upon growing up with that rapidly expanding but then comparatively small city. Without any particular aim beyond that of an eagerness to make money, they set themselves resolutely to do the best that was in them to promote their respective fortunes. These three young men were Potter Palmer, Marshall Field, and Levi Z. Leiter.

Mr. Palmer came on the scene in 1852, Mr. Field and Mr. Leiter following a year or two later. There was not much in Chicago to tempt these young men to settle in it other than the opportunities it offered of advancement, for in those days the city was anything but a pleasant place of residence; its streets were muddy past description, its outskirts were swampy and malarial, while all beyond was prairie wilderness. In fact, it needed courage to take up one's abode in Chicago in the early "fifties." Its sanitary condition was of the worst, and when cholera epidemics broke out in the land, this unformed and chaotic city on the shores of Lake Michigan was sure to fall a prey to the scourge.

Mr. Potter Palmer was the first of the three young men to launch out into trade on his own account in Chicago, and this he did on first coming to the city with money he had saved while acting as clerk in a wholesale house in the East. He opened a small drapery store in Lake Street, which was then the principal street of Chicago, though to-day but a dingy thoroughfare fallen away from the heart of the city, and no longer a shopping centre. Yet it was in that region that the foundations of Chicago's greatness were laid, and where the social and political life of the city was centred for many years. It was in Lake Street that Chicago's first hotel, Chicago's first theatre, and Chicago's first concert hall were built. In the last-named building the first telegraphic message ever sent to Chicago was received, and it was there that the mass meeting was held in 1837 for the obtaining of a city charter. In fact, when Mr. Potter Palmer opened his shop, and his friends Field and Leiter afterwards made congratulatory calls, there was little to be seen in and around Lake Street to indicate that Chicago was ultimately to become the second city of the Republic.

THREE YOUNG DRAPERS.

But the new young blood imported into the city soon began to tell its tale. New trading methods were introduced, and the business pace was improved. Mr. Palmer, for instance, established a system of trade which permitted purchasers to exchange goods after paying for them if they were dissatisfied, or to return them and get their money back—concessions which the buying public greatly approved of. The system became known as the Palmer system, and, though strongly denounced by his rivals in trade, was a bid for popularity that succeeded, and Mr. Palmer soon found himself doing a profitable and increasing business.

While Mr. Potter Palmer was busily engaged in building up this Lake Street concern of his, Mr. Field and Mr. Leiter were employed as clerks in the wholesale drapery house of Cooley, Wadsworth, & Co., in the same business centre, and a firm friendship came to be established between the three young men, and all made good headway in their several undertakings. As Mr. Palmer strengthened his business hold, Mr. Leiter and Mr. Field strengthened theirs, the two clerks in the course of a few years being made partners in the firm they had so diligently served. So matters stood in 1865, when Mr. Palmer took his two friends into business with himself, and the firm of Field, Palmer, & Leiter was organised, the new partners bringing their combined savings into the enterprise, and greatly enlarging the operations of the house.

From these beginnings there gradually grew up one of the greatest "dry-goods" businesses the world has seen, and each of the partners became a multi-millionaire.

In 1867, Mr. Potter Palmer retired from the drapery business to follow other lines of money-making, and thenceforward for fourteen years the business which he had established was carried on with augmented success under the title of Field, Leiter, & Co. It was Mr. Field, however, who was the directing genius of the undertaking. He revelled in silks and satins, ribbons and laces, mantles and gowns and costumes, and whatsoever Paris or London led with in point of fashion he took good care Chicago should quickly follow in. He was the "dry goods" king of the West then, as, with added power, he remains to-day. But in 1880, Mr. Leiter, who had been steadily, warily, and silently extending his investments in real estate, began to think that land and buildings had more charm for him than such evanescent things as articles of dress, and intimated to Mr. Field that it might be well to make arrangements for leaving him in sole control of the "dry goods" business. The result was that on January 1, 1881, Mr. Marshall Field alone was left to continue the drapery business established by Mr. Potter Palmer nearly thirty years before, Mr. Leiter disposing of his interest to him. From this parting of the ways no diminution of success happened to any of the three men who had been associated together; Mr. Field was enormously prosperous in his drapery business, Mr. Leiter acquired riches in speculating in property, and Mr. Palmer also amassed fortune in the line he had chosen for himself. What is more, each of them still lives to enjoy the solid results of his labour.

A QUIET MONEY-MAKER.

It is of Mr. Leiter, however, that we have more specially to speak. Although he has not been quite so prominent in the public eye as his old business comrades, his operations have been sufficiently distinctive to command notice. Still, Mr. Leiter's personality is invested with a good deal of mystery. He has made wealth without achieving any particular fame. Quietly, and almost secretly, he has taken part in many of the leading undertakings which have been the means of making Chicago the wonderful city that it is. He has been a sort of commercial Sphinx, carefully keeping his own counsel while keenly watching the trend of the city's business growth, and, when the favourable moment for speculative experiment has arrived, availing himself of it in the same unobtrusive way. Money-making with Mr. Leiter, indeed, has been like a great game of chess. He has been alive to every move on the board, and has never been checkmated, although pitted against some of the cleverest financiers of modern times. The old saying that "money makes money" has had a striking illustration in his busy career. He made sufficient out of the "dry goods" business to supply himself with capital to speculate with, and his first ventures, apart from that business, were on the safe and sure ground of investments in real estate. There could be no going wrong in that. Chicago was expanding at an unprecedented rate. In a country of marvellous growths its progress was the most marvellous of all. Year by year new streets were being built, and fresh tracts of prairie were being incorporated within the city's boundaries. Then, like the shock of doom, came the great fire of 1871, which laid the city waste, and, for a time, ruin and despair seemed to be written across Chicago's record. Innumerable fortunes were swept away by the conflagration, never to be recovered, but the few who were able to stand up against the overwhelming destruction were provided with opportunities of enriching themselves far beyond anything they had previously dreamt of.

THE CHICAGO FIRE.

Everything in Chicago had a new beginning from the date of that appalling fire. When Mrs. O'Leary's cow kicked over the small lamp, by the light of which the good wife was milking the animal, in an old barn in De Koven Street, on the night of Monday, October 9, 1871, the prosperous city was resting from the labours of the day, and hardly a shadow hung over the prospect. But in less than two hours from the upsetting of the fatal lamp half the city was in a blaze, and men, women, and children were flying for their lives out on to the waste places beyond the northern limits of the city. When once the flames had got the mastery all efforts to arrest their course were useless. They sped relentlessly on, and before they died down the greater part of the city was a mass of smouldering ruins, miles and miles in extent, and the homeless inhabitants were camping out on the prairie, destitute, leaving behind them their treasured belongings wrecked beyond redemption. From that baptism of fire, however, the city received a not unneeded purification, and from the ruins there sprung up another city, greater and more beautiful by far than the one that had perished.

Most of Chicago's leading citizens lost heavily by the fire. Mr. Potter Palmer had buildings destroyed which had yielded him an annual income of £40,000. Mr. Field was also a serious sufferer; but Mr. Leiter, whose real estate investments at that period were more in landed property than buildings, was not so unfortunate. To him, as to Mr. Palmer and many others, the disaster provided new opportunities. The city had to be rebuilt as speedily as possible, and to the capitalists capable of taking part in the work of reconstruction there was the prospect of great gain.

City Building and Fortune Building.

Amongst the men who took advantage of those opportunities was Mr. Leiter, who was in a much better position to avail himself of them than most of the others who turned their energies in that direction. He was one of the few who didn't plunge but kept their heads clear all through. He secured some of the finest sites in the heart of the business region, and erected thereon some of the most handsome and substantial office buildings in Chicago. Block after block was swiftly reared, and eager tenants were ready to occupy them as soon as completed. To-day Mr. Leiter's holdings embrace numerous valuable properties in the very centre of the city, from which he derives a princely revenue in rentals alone. What the Astors did in New York Mr. Leiter did to a smaller extent in Chicago, and it is to shrewd investments in these city properties that he owes the bulk of his large fortune, although he has made many a brilliant financial *coup* on more adventurous fields of money-winning. Numerous millions have been added to Mr. Leiter's wealth by a little shrewd "cornering" from time to time, and there is scarcely a branch of speculation in which Chicago has been interested that he has not at some period operated in with golden results.

Many stories are told of the quiet craftiness of Mr. Leiter's methods of wealth-accumulation, and of his sphinx-like placidity under the most trying ordeals. Sometimes, to the outside public, he has seemed to over-reach himself, and has appeared to be incurring formidable risks, but seldom, indeed, has failure had to be written against any of his enterprises when the losses and gains have been finally reckoned up. Thus it was that, in course of time, Mr. Leiter came to be regarded as a sort of financial seer whose predictions and forecasts rarely failed of fulfilment, and his lead was often followed with confidence and good results.

FROM SOUTH TO WEST.

Mr. Leiter was a man of middle age before his name began to assume any particular significance in the history of Chicago's wonderful expansion. Up to then he had kept himself rather mysteriously in the background, allowing those who were associated with him in business to overshadow him somewhat, although quietly working his way upward all the time. Of a dogged, persistent, and tenacious disposition, and possessing marked individuality of character, he was yet of retiring habits, and was always averse to being dragged into the glare of publicity. His early training was doubtless responsible for much of this. Born in a little country settlement in Maryland, in 1834, his boyhood was spent in rural seclusion, far away from the great world of industrial activity. His parents were of Dutch Calvinistic descent, and the place of their residence bore the name of Leitersburg, in honour of ancestors who had founded it. But Maryland, with its southern drowsiness and apathy, was little to the liking of young Leiter, so after a short spell in the fields following the slow growth of agricultural developments, he broke away from his home associations and migrated to a country town, and for several years held a hard-working and not very remunerative position in the store of a general dealer.

At the age of nineteen, however, in 1853, Mr. Leiter left the Sunny South, and, with Horace Greeley's injunction, "Go West, young man," impressed upon his mind, journeyed to Springfield, Ohio, where he obtained a situation in the store of Peter Murray, one of the prominent merchants of the place and time. It was here that he came into touch with traders from Chicago frequently, from whom he learned much regarding the rapid business extensions that were taking place in that city, and, encouraged by these glowing reports, he pushed forward to Chicago in 1854, and from that time to this his fortunes have been bound up with those of the giant city on the shores of Lake Michigan. Thousands of other young men have drifted westward under similar promptings, their only capital a capacity for work and a determination to succeed, but very few of these ambitious pioneers have been endowed with the spirit of patient endurance, the keenness of insight, and the wisdom of judgment which have proved the strong features of Mr. Leiter's character. When once Mr. Leiter found himself fairly started upon a money-making career, he never once looked back, never once faltered. He put himself in line to profit by every stage of Chicago's material advancement, and the rest seemed easy. Prosperity has not changed the man, however.

Levi Z. Leiter

A Man of Opulence.

Opulent beyond most living financiers and kings of commerce, he has never been tempted to lavish his riches upon vain display, but has lived a life of modest retirement, spending his days like a cultured gentleman, yet never losing his touch of the commercial and financial pulse. To-day his daughter is Vice-Queen of the Indian Empire — Countess Curzon—enjoying a life of Oriental splendour, the centre of a court of dazzling magnificence, and surrounded by a grandeur of display before which the gorgeousness of European courts sinks into insignificance. It is no disparagement to her to add that Mr. Leiter's wealth was the talisman by which she was able to win this exalted position. But while his daughter the Countess revels in regal state in India, while his son risks millions to gain or lose millions in wheat speculations, and while his wife and a second daughter make long sojourns in Europe and take the positions of social queens, Mr. Leiter himself is contented to continue in his old quiet course, and is as unostentatious now as in his earlier years, dividing his time mainly between his house in Chicago and his summer residence on Lake Geneva, Wisconsin. Occasionally, like other rich Americans, he treats himself to the relaxation of a trip to Europe, but society and its pleasures, its show and its trivialities, have little charm for him. His heart is all the time in Chicago, and there alone does he feel thoroughly at home.

But it would be doing Mr. Leiter an injustice to conclude that, during his successful career in Chicago, he has been so absorbed in himself and the creation of his fortune as to have taken no interest in public affairs. A public man, in the ordinary sense, he has never been. Politics he has wisely eschewed, municipal honours he has avoided, but in those higher things which conduce to the elevation of the social well-being of a busy, working community he has always been an active leader. When, after the fire in 1871, the Chicago Relief and Aid Society was organised, Mr. Leiter gave freely of his time and means in support of that body, being one of the directors of the society from 1874 to 1880. Vast sums of money were contributed by cities, states, and individuals all over the world for the relief of those whose fortunes had been swept away by the flames, and this society had the handling of the funds thus got together. The task of distribution was, as may be imagined, a most onerous and difficult one. Many who had been worth hundreds of thousands of dollars had been left penniless, and the just apportioning of the contributions entailed laborious duties. The help of a practical mind like that of Mr. Leiter's at such a juncture was invaluable, and he spared himself in nothing.

SOME OUTSIDE WORK.

The good work that Mr. Leiter did in helping to re-establish the business life of Chicago on a sound footing after the fire, restoring the city's credit, and winning back the confidence of the outside business world will not soon be forgotten. It was largely due to his exertions and influence that the big insurance companies, which had sustained such tremendous losses by the fire, were induced to re-open agencies in Chicago. The companies were by no means eager to do further business with the burned-out city. What had happened once might happen again. Meanwhile, the merchants and traders of Chicago were in the uncomfortable position of having to carry stocks of goods unprotected by insurance. Ultimately, Mr. Leiter's good offices prevailed, and he succeeded in getting the Liverpool and London and Globe Insurance Company, not only to open local agencies in Chicago, but to make that city one of its working centres. This action resulted in reassuring other reliable companies, and one after another they came back and resumed business relations with the new metropolis of the West, hopeful of gradually recouping themselves by the lesser risks which would result from the reconstruction of the city on a safer and more substantial basis.

In 1877 Mr. Leiter took a prominent part in the initiation of the Commercial Club of Chicago, which has accomplished so much in helping forward the prosperity of the city. The object of the club was "the discussion at stated meetings of questions of local polity and economy from a strictly non-partisan point of view," and amongst those men who interested themselves in the project, in addition to Mr. Leiter, was Mr. Leiter's old friend and partner, Marshall Field, together with such well-known men as George M. Pullman, N. K. Fairbank, J. W. Doane, Edison Keith, and many others. This club more than fulfilled the functions of a Chamber of Commerce, and proved to be a very valuable adjunct to Chicago's progress. Mr. Leiter was elected first president of the club, and made an exceptionally energetic leader.

PATCHING UP HISTORY.

Another institution that Mr. Leiter, as a man of reading and culture, interested himself in was the Chicago Historical Society, whose existence tottered in the balance for some time after the great fire. By that calamity the society lost its entire library, including a valuable collection of documents relating to the history of Chicago and the West and North-West; and again in 1874, its premises were burned down and all it had collected since the earlier fire was practically destroyed. These two unfortunate events naturally had the effect of discouraging members, and many of them fell away from it. Moreover, it was not only burdened with debt but was without assets. To save the institution from dissolution, Mr. Leiter came to the rescue, and headed a subscription with a handsome donation. Others followed, and by the efforts thus put forth the Chicago Historical Society was re-established and resumed its old work with quickened vigour. Still, there was a burden of debt remaining, and until that was removed the society's operations were more restricted than they otherwise would have been. This difficulty was also overcome by Mr. Leiter, who joined in a subscription amongst the members, contributing £500 himself, and also paying for the publication of the first two volumes of the society's collection of historical data, at a cost of £200.

Although Mr. Leiter has not loomed so large as a philanthropist as some of America's multi-millionaires, he has not been an ungenerous giver, but has contributed liberally to nearly all local institutions having as their aim the advancement of religion, education, and the arts. The Chicago Art Institute has found in him an acceptable patron, and has benefited by his financial support and active help from its inception. In 1881, he was elected its president. Another institution that he has favoured considerably is that of the American Sunday School Union, to whose funds he has contributed unsparingly. At his own home in Chicago he has an art collection of great value and one of the finest private libraries in the United States.

SOME LATER VENTURES.

Of late years, however, the world has not heard a great deal of the doings of Levi Zeigler Leiter. Still, his work of money-making has not ceased. Nothing but death can arrest that. The speculations he has indulged in of late, though, have been of a character to arouse strong public interest or comment. A couple of years ago, his son, Joseph Leiter, became a remarkable figure in the world of financial speculation by his daring operations in wheat. Day after day the newspapers published glowing accounts of the young man's successful "cornering" of a commodity which up to then had seemed beyond this kind of manipulation, and impossible to be brought under any one man's supremacy. But wheat went up and up, and still Joseph Leiter held on and became the talk of the day. It looked as if he were going to be able to make the biggest stroke of fortune ever known—one that would put even his father's famous financial achievements into the shade. There was, indeed, a period when Joseph Leiter could have "let go" with two and a-half million dollars to the good; but it was not to be. The young man held on too long—held on until Philip D. Armour, massing his vast resources for a counteracting blow, was able to force Joseph Leiter into a quick retreat from the field, a loser of a fortune instead of a winner of one.

That disastrous ending of what had promised to be a brilliant financial achievement was, perhaps, a more severe blow to the father than to the son. Joseph Leiter had made the markets of the world tremble for a brief space, then he had over-reached himself, and the upshot was that Levi Z. Leiter was left to gather up the ravelled ends of his son's fortune as best he could. This is the work that has taken much of the joy of living out of the father, his own career having been marked by an uninterrupted series of successes. This sudden dashing of his hopes regarding his son must have been a great trouble to him. On the Chicago Exchange they say, "Mr. Leiter has never been the hard fighter he was before Joseph went to smash."

In spite of this Mr. Leiter is frequently heard of when great financial schemes are brewing on either side of the Atlantic, and during a recent visit to this country showed his interest in the electric railway undertaking which another Chicagoan, Mr. Charles T. Yerkes, has taken under his control, by providing a large slice of the required capital. Mr. Leiter may be trusted to know a good investment when it comes his way, and, as for the other kind, he has a quick way of reckoning them up, and an instinctive capacity for avoiding them.

GEORGE WESTINGHOUSE

THE INVENTOR OF THE AIR-BRAKE

THE air-brake would almost seem to be ancient history in these days, so long has it been before the public ; for all that, its inventor, George Westinghouse, has not seen much more than half a century of life, having been born at Schenectady, in New York State, in 1846. His father was a mechanical engineer in a small way of business, and the old works of George Westinghouse & Co. still survive to commemorate the name at Schenectady.

After the usual course of schooling which was deemed sufficient for a boy at that period, young George Westinghouse was put to work in his father's establishment, and soon gave evidence not only of an aptitude for the business, but an uncommon appreciation of mechanical conditions and requirements. He displayed great skill in the handling of tools, and was able from time to time to suggest important improvements to his father, who was delighted to observe his son's diligence and ability.

George Westinghouse had not long been engaged in this welcome work, however, when the Civil War broke out, and every young man capable of bearing arms was fired with patriotic enthusiasm and longed to take part in the conflict. The honour and destiny of his country was at that time more important to George Westinghouse than his employment, much as he loved the latter. Accordingly, he volunteered for the front, and for more than a year served gallantly as a private—first in the infantry, and afterwards in the cavalry. Perhaps, like Dickens's Richard Doubledick of "The Seven Poor Travellers," he came to the conclusion that it would be as honourable and far more easy to face death on horseback than on foot. But the young soldier was no mere ornamental strutter in uniform, intent upon enjoyment and display. He was in earnest in fighting his country's battles, as he had been in helping his father in the machine-shop. He had always a full sense of his responsibilities in whatever sphere he found himself, and bore the hardships of the campaign courageously and cheerfully. Wherever he could be of service, there he was to be found. He was a man who thought, moreover, as well as served, and one day it occurred to him that it might be possible for him to apply his mechanical knowledge to some purpose in the war, instead of being content to be a mere fighting machine; so he consulted with his superiors, and on their recommendation offered himself for the navy, becoming an officer of engineers, in which capacity he served with approval and distinction up to the end of the war, when, having done all that he could and fulfilled all that was required of him, he returned to his old peaceful pursuits at Schenectady.

When he entered his father's works again it was with a greatly enlarged experience. In coming in contact with the activity and bustle of war, which exacted so much and involved so much fierce contention, his mind had been expanded and his ambition stirred, and he saw everything with a new vision. He thirsted for additional knowledge—not the knowledge of the classics, or philosophy, or theology, but just the practical scientific learning that would best aid him in his aspiration to become a skilled handler of tools and a competent man of business. So for a time after his return home he occupied his spare time at the Union College, an educational institution of considerable note in his native city. He was as diligent a student as he was a mechanic. After going through a practical scientific course, he was able to devote himself with more success than ever to the machine works. There, under the eye of his father, he made himself acquainted with the details of every department of mechanical engineering, and before long set his thoughts revolving round various problems of invention which were then occupying men's thoughts. It was soon discovered that young Westinghouse possessed gifts beyond ordinary engineering capacity; that, in fact, he was endowed with a genius for invention which only required proper scope to arrive at important realisations.

His first distinct invention was a special railway "frog," which was immediately adopted and proved of great utility. It was while engaged in applying this invention that his attention was attracted to the question of brakes. He could see that the brake apparatus then in use on railway trains was very defective, and led to many serious accidents. The stopping of a train in those days was a slow, noisy, irritating affair, involving an amount of friction on the wheels which was excruciating to the nerves and very difficult to control; in truth, the brake-power used for railway trains at that time was not much better than the brake in common use on road vehicles—a thing that was altogether unworthy of alliance with such a powerful machine as a railway train propelled by steam power. In the matter of brakes, indeed, there had not been very much improvement since George Stephenson put his first successful locomotive—the Rocket—into operation on the Stockton and Darlington Railway.

The brake problem was one in every way worthy of a great inventor's study, and George Westinghouse set himself to the task with all the energy and ability at his command. His first impulse was to use steam, with a motor cylinder under each car, and on this line of action he experimented for a considerable time, without, however, arriving at any satisfactory result. He came to the conclusion in the end that the difficulty from condensation made that particular method impracticable. But he was not discouraged by finding his progress arrested in this direction. He at once applied himself to thinking out the problem on fresh lines, but it was some time before he could evolve any satisfactory idea. Still, he never relinquished the problem as insolvable. It was a great disappointment to him to have to abandon steam, inasmuch as that element seemed the most natural and most accessible agency at command. Then the right idea came to him. Reading of the use of compressed air in the machinery for the boring of the Mont Cenis tunnel, he conceived the idea of utilising that agency for a brake apparatus. He argued that, if power were capable of being transmitted by means of compressed air in boring operations, it would be possible to apply it to the motor cylinders on the brakes of railway trains. With this conviction firmly implanted in his mind he began a fresh series of experiments, and after a long course of hard and ingenious effort, during which anxious time he fashioned all the materials necessary for his experiments with his own hands, he at last evolved an air-brake which he looked upon as effectually solving the whole of the problem.

Assured of the practical value of his invention, he now began to look around for means of putting it to an adequate experimental test, but there was a good deal of difficulty attending this. He could not afford to disclose his invention and place it at the mercy of others. Besides, to make the trials on a sufficient scale to provide an efficient test would involve an expenditure of money far beyond the inventor's means at that time. Fortunately, Mr. Westinghouse was able to meet with a local capitalist who was willing to join him in the exploiting of the invention, and, after it had been duly patented, efforts were made to interest railway men in the new brake. This, however, was no easy matter. So many inventions of a useless character were being constantly put before them that they viewed everything of the kind with suspicion and distrust, and seldom would take the trouble to investigate a new idea themselves. Inventors, indeed, were regarded as something of a nuisance to be got rid of as soon as possible. Here was an invention of the first order, an invention that meant a complete revolution in the management of railway trains, and one that was calculated to effect a wonderful economy in running trains, and yet it was almost impossible to find any one who was willing to consider it, much less experiment with it.

In time, however, a railway manager of more advanced ideas was discovered, who, after a thorough investigation of the invention, had sufficient hope of it to induce him to place a train at the disposal of Mr. Westinghouse for him to experiment upon. This was a most trying time for the inventor, so much depending upon the initial test, but, as it turned out, the brake had been so thoroughly finished and was so readily applied that there was no difficulty in judging of its merits on the first trial. It was pronounced a complete success; and even on the occasion of its first being put into use was the means of preventing a serious accident.

The air-brake now began to be talked about. Managers and directors who had previously declined to have anything to do with it were now desirous of making the acquaintance of the inventor, and from being an obscure engineer in a somewhat remote part of the country he suddenly sprang into fame, and the introduction of the air-brake became an assured prospect. Railway after railway adopted it, and, in a little while, the difficulty was to keep pace with the demand. Large works had to be erected for the manufacture of the brakes, and the planning, organising, and equipment of these establishments entailed most laborious work upon Mr. Westinghouse. Patents were taken out in the various countries of Europe, and European railway men were so anxious to adopt the new brake that Mr. Westinghouse paid a visit to England, France, and Germany with a view of arranging for its production in those countries. But the conditions were not quite so easy as they had been in America. His invention had already been much discussed in Europe, and unscrupulous inventors were in the field with air-brakes of their own, sufficiently varied, as they thought, to be outside the scope of Mr. Westinghouse's patent. The vital principle of the Westinghouse brake, however, and the simplicity of its application, were matters that imitators found it difficult to deal with without actual infringement, and it was soon seen that the original American invention was a much more effective apparatus than those put on the market by his rivals. Most of the leading countries of Europe adopted the Westinghouse brake, and it was acknowledged on all sides to be the most important factor in the prevention of railway accidents that had up to that time been discovered.

But Mr. Westinghouse was not satisfied with merely just leading his rivals; it was necessary for him to outdistance them to such an extent that they would not be in the running with him; so he set himself to improve the air-brake, and after a time evolved that important improvement, the "triple valve," which as a creative effort was hardly less remarkable than the original invention itself. By means of this improvement the brake could be applied almost instantaneously on a train of any length, and it also included the additional advantage of automatically applying the brakes if any part of a train became separated from the rest. In this again he reduced the risk of accidents very considerably.

Those were busy days for Mr. Westinghouse, who proved himself to be as capable a man of business as he was an inventor. He successfully organised a large factory for the manufacture of the brakes at Wilmerding, Pennsylvania, adopting a system which enabled him to produce the brakes cheaply and in large quantities, at the same time securing accuracy and high finish. He was now in a position to supply brakes at so low a rate that it was found more economical for railway companies to buy the brakes ready made from Wilmerding than to construct them themselves upon a small royalty. At the outset the works were built double the size that was necessary for the executing of orders then in hand and in prospect, but Mr. Westinghouse had a habit of looking ahead, and could see that the development of the country and the extension of its railway system would at no distant date make greater demands upon his power of production. That he was right has been amply proved by his later experience, and the air-brake works at Wilmerding, now greatly enlarged, constitute a factory of such perfect equipment as is rarely met with even in these days of efficient organisation.

Mr. Westinghouse is not a one idea or one invention man. After his brake was in full operation, he began to turn his attention to other fields of effort, and possessing great physical energy, being over six feet in height and a fine specimen of vigorous manhood, he was able to exert himself with success in everything that he undertook in which hard work and brains had a fair chance. He spared himself in nothing. He himself attributes much of his prosperity to this capacity for work; but he has been more than a worker, he has been not only an inventor of note but at the same time has been a clever man of business and a resourceful administrator.

From the air-brake Mr. Westinghouse turned to electricity, and introduced certain pneumatic devices for switching and signalling to be controlled electrically. The successful application of pneumatic transmission of power in the air-brake suggested these ideas to him and led to satisfactory results. Electricity had not been very extensively applied in those days for mechanical purposes, but Mr. Westinghouse foresaw vast possibilities in this power, and associated himself with a number of others who had for a long time been engaged upon electrical problems, and acquired the control of some important patents covering the use of alternating currents. A company was formed for the manufacture of electrical machinery, under the title of the Westinghouse Electrical Manufacturing Co., thus setting on foot a new branch of industry which, under his splendid management, has developed into an undertaking of far-reaching dimensions.

There was a good deal of fighting to be done with rival electricians before Mr. Westinghouse succeeded in establishing the use of the alternating current. In some States it was attempted to get laws passed prohibiting its use, and when electrocution was adopted in New York, underhand means were resorted to, it is said, and a Westinghouse alternating dynamo was purchased and so interfered with that the alternating current was made to appear greatly more dangerous than the direct current. But no amount of trickery or opposition could prevail against the indomitable persistency of Mr. Westinghouse when once he had convinced himself that the thing he had taken up was right, so year in and year out he persevered, overcoming every obstacle that presented itself.

His first great electrical triumph was at Chicago. He took the contract for lighting the World's Fair of 1893 in that city, at a price upwards of £200,000 below what had been offered by other companies. His rivals were for the moment nonplussed, but they did not desist from opposition. They made representations to the Exposition authorities that Mr. Westinghouse could not secure sufficient bonds to insure the fulfilment of his contract. To this Mr. Westinghouse replied with characteristic energy, and furnished three separate bonds each equal to the amount involved. But even then the competing companies did not bury their malice. They had recourse to other tactics. Injunctions were obtained to prevent Mr. Westinghouse using the Edison patents in the manufacture of the lamps, as well as the air-pumps for exhausting the bulbs, which at that time was supposed to be the best method. But even this did not daunt Mr. Westinghouse. He determined to show himself independent of every one, and invented another form of lamp entirely, known as the "stopper" pattern, inventing and building at the same time machines for the accurate grinding of the stoppers and the neck of the bulbs. In addition to this, he introduced a special kind of air-pump to secure the exhaustion. The result of all this was that the installation of alternating-current apparatus at the Chicago Exhibition was the largest and most important that had been made up to that time, and it was due to Mr. Westinghouse that the stockholders were ultimately able to divide up a surplus of £200,000, for it was that sum exactly that he saved them by taking the contract for the lighting. Another brilliant success with the alternating-current apparatus was subsequently won at the time of the Niagara installation, which was by far the greatest electrical installation which had been planned up to its inception.

It has all along been characteristic of Mr. Westinghouse that no sooner has he conquered one field of invention or industry than he has bent his full energies to the conquest of still another important sphere of activity; and he has never been so wedded to his own inventions and schemes that he could not take a sincere interest in what others were doing to help forward the general growth of business expansion. In fact, in recent years he has devoted an abundance of money and time to the furthering of the ideas of others, and having a wonderful keenness of perception in such matters, he has seldom gone wrong. He is always ready to consider any invention or business proposal that may be submitted to him, and will take any amount of trouble to investigate it, for he has not forgotten how he himself was treated in the days when he was endeavouring to get his air-brake into notice. When Mr. Westinghouse has examined a new project and has come to the conclusion that there is nothing in it, it may be taken for granted that he is right; but, on the other hand, if he sees real value in it, he does not hesitate to spend money upon it in helping to bring it to the point of success.

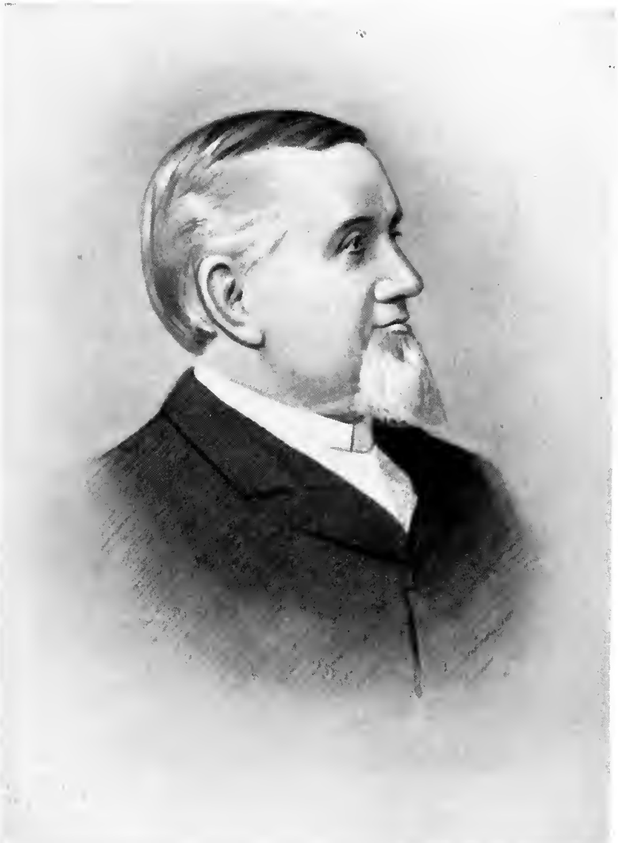
It was Mr. Westinghouse who aided Tesla in the development of his multiphase apparatus and what is known as the "induction" motor, which really made the transmission of electrical power simple and successful. Another instance of Mr. Westinghouse's sagacity in such matters is shown in his taking up of the Nerust lamp. This contrivance was laid before Mr. Westinghouse some time ago, and he considered it an invention of special value, inasmuch as if it could be perfected according to the inventor's ideas it will afford illumination with less than half the expenditure of current now required in the case of the best incandescent lamp. When Mr. Westinghouse took hold of the Nerust lamp and secured control of the Nerust patents for America, the lamp was far from being a marketable article, and it has been his study to bring it to the point of commercial success. In order to accomplish this he has employed a corps of skilled workmen under the direction of the best engineers and physicists to work out the problem, and although the hoped-for result has not yet been attained, Mr. Westinghouse has unbounded faith in it, and if the principle of the lamp should come to be thoroughly established there will be an ample reward for Mr. Westinghouse and those associated with him in the invention, and the science of electric lighting will have made another substantial advance.

In connection with the signalling apparatus with which Mr. Westinghouse has so long been identified, and to which reference has been previously made in this article, the Union Switch and Signalling Company was established; and for the manufacture of steam and gas engines and steam turbines the Westinghouse Machine Company was organised. These two companies have been carried on with great success, and Mr. Westinghouse has been unceasing in his devotion to their interests. Through his efforts the various apparatus, machines, and engines turned out by these establishments have had sufficient specialties of mechanism imparted to them by which standard forms have been varied, giving to the Westinghouse productions advantages that are all their own. The gas engine has in particular been brought to a point of mechanical perfection by Mr. Westinghouse that it is regarded, as he has improved it, as almost the rival of the steam engine. The only thing required to make it equally useful is the difficulty of obtaining a sufficiently cheap and available form of artificial gas, but experiments are being constantly made under Mr. Westinghouse's direction with the object of solving this problem.

Mr. Westinghouse's handling of natural gas has also been eminently successful. It was he who introduced the system of conveying the gas by pipes from the gas-wells; and the Philadelphia Company in Pittsburgh, which controls the natural gas distribution for that region, was an undertaking of his creation.

In one way and another it will be seen Mr. Westinghouse is a man of many responsibilities and duties. He is at the head of a number of organisations of the first importance, and keeps in constant directing touch with all of them. They comprise, in addition to the works already mentioned, the great Westinghouse establishments near Pittsburgh, which are known to every one who has visited that great iron and steel region of America. There are also factories for the manufacture of the Westinghouse brake in England, France, Germany, and Russia; and works on a large scale are now in course of construction at Manchester for the British Westinghouse Electric and Manufacturing Company, where the same articles will be made as in the Westinghouse electrical and machine works in America. There is also a French Westinghouse Company with large factories at Havre.

Mr. Westinghouse's career has been one almost exclusively of business. Invention made his success in the first instance, and has been an element of his prosperity all through his history, but it has been his remarkable capacity for business that has been the dominating feature in his life. Apart from his many enterprises, he has been but little known, and never made any attempt to pose as a public man. His life has, however, been one of simplicity, and he has always been a man of absolute integrity. It is on simple lines like these that great careers are usually built up. He has never attempted to achieve anything that was beyond his attainment, and in his own field of labour has achieved the highest point of success. Like Mr. Andrew Carnegie, he is a keen judge of character, and knows how to pick and choose his lieutenants, who are all firmly attached to him. In the Westinghouse establishments in America there are over 10,000 workpeople profitably employed, and the capital of these concerns is £10,000,000. Mr. Westinghouse's work has been a good work and a great work, and it must be a satisfaction to him to feel that in his capacity as inventor and man of business he has been the means of contributing largely to the extension of civilising influences.



GEORGE M. PULLMAN

THE SLEEPING CAR MAGNATE

From an Original Drawing

GEORGE M. PULLMAN

THE PULLMAN CAR PIONEER

ONLY a few months ago, the first sleeping-car properly entitled to that designation was recalled from service, and retired into the shops of the Pullman Company, at Pullman, near Chicago, where it will henceforth be on view as an object of history, occupying a position akin to that of George Stephenson's first locomotive, "the Rocket," which, elevated on a pedestal, serves as an object-lesson to all who visit the railway station at Darlington. The Pullman car was not a great creative invention like the locomotive, it must be admitted; for all that, it was an era-marking contribution to railway development, and is entitled to a distinct place of honour in railway history.

The name of the car thus distinguished is the "Pioneer," and although, compared with the magnificent Pullman cars of the present day, it presents a rather insignificant appearance, it cannot but be acknowledged that it was the means of initiating one of the most important revolutions in railway working that has ever taken place. The change that it brought about means much more to America than it does to England, the railway distances in the land of the Stars and Stripes being so much longer than in Great Britain. In the United States, indeed, sleeping-cars are a nightly necessity of railway travel, and every long-distance train is partly composed of them. Some trains are entirely made up of Pullman cars.

There were sleeping-cars of a sort before the "Pioneer," but they were not of a good sort. Mr. Andrew Carnegie was, in his early business career, associated with a sleeping-car invention, but he did not continue his connection with it very long, partly because of want of capital, and partly because of the opening up of opportunities of what appeared to him to be a more promising character. But up to the time of the building of the "Pioneer," the few sleeping-cars that were put on the American lines were little more than freight cars, with bunks arranged along the sides, without pillows or bedding, while the luxury of a stove for heating in cold weather was never dreamt of.

This was the condition of affairs as regards sleeping-cars when George M. Pullman first had his attention directed to the subject. Born and brought up amidst humble surroundings in a small country town in the State of New York, he had made his way from farm-working to a clerkship in a general store, and after that had been provided with a situation in the cabinetmaking shop of an elder brother, where he acquired a knowledge of woods and construction, which afterwards proved of great service to him. But he was ambitious, and a day came when he struck out into a line of business of his own. In America, very often when a man gets tired of looking out of his house at the same opposite side of the street, or the same open space, or the same set of landmarks, whatever they may be, he does not search out for a fresh residence, but has the house just as it stands moved to such other part of the town as he may have fixed his mind upon. They also have big business premises transported from one spot to another. George M. Pullman took a fancy to this kind of work, and came out as a contractor for house and building transplantings. He carried out his engagements so successfully that in time he obtained a rather large order in this line, which involved the removal of buildings from the course of the Erie Canal. These undertakings proved profitable to him, and gave him the idea that if a small success of this kind was to be obtained in the East, where things were pretty well established and developed, there must be a still greater success to be attained in building-moving in a great business centre like Chicago, which was rapidly extending its borders and increasing its prosperity, and he accordingly left the old home and proceeded to the metropolis of the middle West.

He made the westward move at a highly favourable time. A great street-improvement scheme had been decided upon by the Chicago city authorities. A new grade and building line was in course of formation, entailing a good deal of shifting of quarters, putting back, and levelling up. It was just the opportunity that George M. Pullman wanted, and he was soon busily employed, with a number of men under him, assisting in the responsible work of moving buildings to improved sites. The work brought him money, putting him in possession of sufficient capital to embark upon another enterprise that he had thought much upon since his first coming to Chicago. That was the idea of an improved sleeping-car.

Mr. Pullman had spent one night on a so-called sleeping-car on making the journey to Chicago from the East. This car ran between Buffalo and Westfield, and his experience in it had been so uncomfortable—he had been so jolted and tossed about on his pillowless bed—that he passed a great portion of the wakeful night wondering if it would not be possible to construct a sleeping-car that should be worthy of the name. The more he turned the matter over in his mind the more was he convinced that such a thing could be done; and he came to the conclusion also that he was the man to do it. He kept his thoughts to himself, however, knowing that it would be little use trying to carry out such a project without a fair amount of capital. So he went steadily on with his building-moving month after month, putting by what money he could, all the time nursing this new idea, and resolving at as early a moment as possible to work it out.

When he had a little capital in hand, therefore, he approached some of the railway companies on the subject, laying before them plans for a new style of sleeping-car that would, he believed, be as profitable to the companies as it would be welcome to the travelling public. But, as it had been with the locomotive and the steamship, and so many other inventions, so it was with the first proposals for the Pullman sleeping-car—he could hardly get any one to listen to him.

One company after another scouted his ideas as chimerical. They did not believe such cars could be run at a profit, for when Mr. Pullman named the probable cost of the kind of car he had in his mind they were aghast.

It began to look as if nothing was to come of his idea, directors and managers were so obstinate and difficult to move; but by persisting in season and out of season he at last succeeded in getting the Chicago and Alton officials to grant him leave to experiment on two of their old day coaches, which they could well spare, but so little interest did they take in the business and so doubtful were they of his success that they declined to bear any part of the cost of his experiments. Mr. Pullman was nothing daunted, however, but went earnestly to work upon the two carriages, with only one man to help him, and after a considerable period of anxious and absorbing labour, the first Pullman sleeping-car grew into an established fact. That is, there the car was as Mr. Pullman had originally thought it out, but to get it adopted was the difficulty. The Chicago and Alton people acknowledged that the new car was a great advance upon all previous sleeping-cars, but were still averse to putting money into the project. The cost of the new sleeper was about £600, and at that the directors did not think it could be made to pay, but when Mr. Pullman announced that the sleeping-car that was really required was one of a far finer build that would cost £3600—six times as much as the one they were so doubtful about—he was told that he had taken leave of his senses, and was politely but firmly informed that the Chicago and Alton Company would have nothing further to do with such insane projects.

George M. Pullman was not to be diverted from his purpose, however, by the short-sightedness of any railway company in existence. The further his idea had been developed the more certain he had felt of ultimate success. When he resumed work, therefore, it was at his own expense entirely, and on his own premises. He engaged extra assistants, and, after several months of active and hopeful effort, a car was finished which, as a sample of car-building, and as an object of comfort, luxury, and beauty, was admitted to be far ahead of anything that had ever before been seen on wheels. As a thing to be admired and talked about it brought its constructor into much notice, but as a railway coach, to be hurried at express speed from city to city, and bumped and tossed and tumbled backward and forward, and to be sat in and slept in, why, it was altogether too good. It was a palace on wheels, fit only for princes and millionaires, and quite beyond the dreams of ordinary American citizens. These, and similar arguments were advanced as spokes in the wheels of the first Pullman car, but nothing availed to discourage the plucky inventor. "Only the best is good enough for the American citizen," he used to say, and to that text he stuck, and in time the American citizen took to the idea, since when he has steadily stuck to his Pullman.

This Pullman car, which at that time was regarded so curiously, was a beautiful vehicle. The interior was composed of fine cabinet work of expensive woods, daintily panelled and inlaid, with mirrors let in between the window-spaces. In the upholstering the most lovely fabrics had been employed, and artists of great skill had been engaged upon the decorations. This was the "Pioneer" that was put in retirement the other day. It was heavy and cumbersome in comparison with the elegant sleeping-cars of the present time, and had sixteen wheels; but it solved the sleeping-car problem and introduced a system of railway travelling which has been adopted, with modifications, in all the countries of the world.

This was in 1863, after Mr. Pullman had been in Chicago four years. The next car was a bigger surprise still. It cost £4800. The railway companies were frightened beyond measure at the outlay represented in the adoption of the Pullman cars. It was thought that they were too costly ever to get into general use, but Mr. Pullman knew better. He had gauged the position with accuracy, and his predictions were more than fulfilled in the space of a few years, in spite of the fact that his cars grew in magnificence and cost until the expense of a single car reached the sum of £10,000.

The companies could not see money in the new cars, so they would not invest in them. They could not understand how they could ever get returns that would justify their cost. On the old "sleepers" they had only charged two shillings for sleeping accommodation, while Mr. Pullman figured on a charge of eight shillings per berth. There was only one course left to Mr. Pullman, and probably it was the course he preferred; at all events, it turned out to be much the best thing for him that could have been done. The companies would take no risk whatever in connection with the cars, ownership was out of the question, and even when a partnership was suggested they declined that; so Mr. Pullman offered to provide and run the cars at his own cost on a mileage arrangement, and this plan was agreed to, and it is on this system that Pullman cars have ever since been worked on American railways. It is a system that yielded splendid results to its originator and the company which he organised.

From these beginnings the Pullman Company gradually extended its operations until the organisation became one of the most important industries of America, with a paid-up capital of £7,200,000, which, little more than a year ago, was largely augmented by the taking over of the stock of the Wagner Sleeping-Car Company, the only rival company that existed in America, for which £4,000,000 in Pullman stock at face value and £7,800,000 at actual value was paid. Before the consolidation of the two companies the Pullman Company were operating about 3500 of their sleeping-cars, covering nearly every railway and running to almost every accessible city in the United States, Canada, and Mexico, while many are also to be found on the railways of Europe, Asia, Africa, and Central and South America. The addition of the cars of the Wagner system has given many more cars to the Pullman Company, putting the latter in possession of the sleeping-car organisations on every railway of importance on the

American continent except the few that build their own special cars.

For the first few years of the Pullman Company's operations its workshops were situated in different cities, but the business expanded at such a rate that in 1879 Mr. Pullman decided upon concentrating the firm's works in one gigantic concern, and, with that view, he bought an extensive tract of land some fourteen miles south of Chicago, bordering on Lake Calumet, and there erected the present works of the Pullman Company. These well-planned and beautifully-situated works, and the model town which Mr. Pullman built adjacent to it, cover some 3500 acres. The land was swamp originally, but by means of a thoroughly efficient system of drainage was transformed into a dry, healthy region, and from 1880, when the Pullman plant was put into actual working, the business has been carried on with ever-increasing prosperity. The various departments are fitted with the best and most improved machinery and appliances, and have a producing capacity of 300 sleeping-cars, 625 passenger cars, 12,000 freight cars, and 1000 street cars per year, for the operations of the Pullman Company include the building not only of the special vehicles with which their name is more particularly associated but of railway rolling-stock of every description. When the works are in full swing they give employment to from 5000 to 6000 people, and everything is systematised so completely that the very highest economic conditions are realised.

In the summer of 1899 it was my good fortune to pay a couple of visits to this remarkable industrial colony, and I was much impressed by the English aspect of the place, its far-stretching buildings, the neat and orderly arrangement of everything, and the pretty patches of greenery which spread themselves in front, between the office entrances and the Illinois Central Railway that runs close by and has branch lines running direct into the works themselves. The interior presented a very active scene in every department, and altogether one could not do otherwise than conclude that the whole establishment was the outcome of the planning of a master mind. John Burns went to Pullman when he visited America a few years ago and was shown over the Pullman works and town, and, although he was probably not there to pay compliments, he freely acknowledged that Pullman was the most satisfactory manufacturing town he had ever seen.

The shops devoted to the construction of the Pullman cars are divided into numerous departments. In one part all the heavier iron and steel work is handled; in another the woodwork receives treatment, and the specimens of wood one sees are beautiful to look upon, so fine in grain and so lovely in conformation and pattern are they; and in still another there is the elegant upholstery work being carried on, where the atmosphere is redolent of dainty satins, silks, velvets, and other textural luxuries. Then there is the point where the putting together of the various parts—the building up and construction—takes place. The whole of these sections are dovetailed one with another, so to speak, and reveal a succession of animated industrial pictures which it would be difficult to match in any other place. The scenes are unique.

The department in which the construction of freight cars is unceasingly prosecuted is also most interesting. This is a long building, stretching in a straight line from the back of the main structure, and the work going on within its walls forcibly illustrate the admirable methods of the Pullman establishment. At the south end of this building the rough lumber is unloaded from the railway cars and passed forward upon rollers, from one set of men to another, until it is ready for the hands of the constructors. In the centre of the building it is brought into alliance with the wheels and the iron sections, and the task of fitting the whole together is performed with a dexterity that almost seems supernatural. These freight cars or trucks are turned out at about the rate of thirty per day, and as they are finished they are sent forth at the north end of the shop on to the adjacent railway siding. The rapidity of the transformation by these various processes from the raw material to the perfected car, completely fixed, fitted, and painted, is something truly marvellous.

As to the town itself, there is much about it to remind one of Saltaire, in Yorkshire, founded by the late Sir Titus Salt. Pullman contains about 2000 houses and tenement buildings, constructed according to the most approved plans, and let at moderate rentals. They are of varying sizes, to meet the convenience and means of occupants. The streets are wide and well paved, and lighted by electricity, and there are a number of parks and open places, with trees, shrubberies, flower-beds, and lawns, which not only add to the picturesqueness of the town but are of the first importance in promoting the health of the people. Having had an abundance of room for the laying out of the town, Mr. Pullman was able to insure to his industrial colonists plenty of "health and quiet breathing," without anything approaching to crowding. The Pullman Company holds itself responsible for the sanitary condition and cleanliness of the place, and much was done under Mr. Pullman's personal provision and direction to minister to the requirements of the residents from an educational point of view as well as to supply the necessities of the people as regards religious observances on the one hand and pleasure and recreation on the other. Several fine churches were built for different denominations, and a roomy and attractive theatre was erected, capable of seating 800 people. Commodious, well-equipped schools were also provided, and a savings bank, which secures a large patronage from the thrifty citizens of Pullman; also an extensive public library, and markets and stores sufficient for all the needs of the population. There was one public institution, however, which Mr. Pullman did not offer to the townspeople, and that was a public-house. As is the case at Saltaire, at Bessbrook in Ireland, and at most other working colonies owned by a single individual or company, intoxicating drinks are strictly prohibited. There are people who think such restrictions a detriment rather than an advantage to a community, and in some instances, no doubt, a forbidden thing is a greater temptation than the thing that is unrestricted, but, on the whole, the evidence is in favour of exclusion, and at Pullman the arrangement works so satisfactorily that no one is heard to complain. Apart from this one condition, Mr. Pullman imposed no restraint upon the people, and his workmen could live in the town or out of it, as they preferred. Lake Calumet, which is a splendid sheet of water, is of material advantage to Pullman, affording excellent facilities for fishing and boating, and, what is still more important, keeping up a constant flow of fresh, pure air across the level landscape. Prosperity is stamped on every feature of the place. The workmen can earn from £2 10s. to £3 10s. per week, and, as a rule, they have regular employment. Once in every few years, when the general trade of the country is at a low ebb, the Pullman shops have to slacken their production, but for the last five years they have not suffered from any appreciable depression.

The only really serious trouble that there has ever been at Pullman was on the occasion of the memorable strike of 1894, in which the greater portion of the railways was involved, when for a time the conflict between masters and men was of the most violent character. It was in connection with this great strike that Eugene V. Debs, the labour agitator, came into such prominence and brought upon himself a term of imprisonment. At this critical juncture Mr. Pullman took up a certain well-defined position, which he maintained unmoved through every trial, and in spite of every threat. He boldly asserted the broad principle that the owners of a business are the men to shape its policy, and not professional agitators from the outside, whose only real labour, he contended, consisted in fomenting trouble. To this simple dictum he stuck resolutely, and with calm dignity awaited the end. Matters were carried to such a pitch that dangerous conflict occurred between the strikers and the police, and it was a considerable time before the supremacy of the national law could be adequately established. It was hard upon the Pullman Company, and especially upon Mr. Pullman himself, that after having made great sacrifices in order to keep the shops running at a time when the industries of the country were paralysed, they had to be confronted with a demand to deal with strangers who had no sort of concern with the business. The result was that the laws of the country had to be appealed to, the outcome being the upholding of the rights of property by the supreme courts, and thus ended one of the most threatening and unpleasant of labour disputes that the United States has so far had to contend with.

Up to little more than a year ago, Pullman was a town to itself, practically governed by the Pullman Company, but the recent enlargement of the boundaries of Chicago have brought the little town on the borders of Lake Calumet within the limits of the larger city. This does not affect the question of ownership in any way, nor does it open the door to outside influence other than as a matter of municipal working. The Pullman town and works remain in the possession and control of the Pullman Company as heretofore, and regarding these as the achievement of one man, George M. Pullman, are to be counted as amongst one of the chief industrial marvels of the country.

Possessed of a valuable practical idea, of which few but himself were able to realise the importance; possessed also of an indomitable energy, some inventive skill, and a decided genius for business, Mr. Pullman was able within a single decade so to shape his course as to lift himself from a comparatively obscure position to the prominence of a millionaireship. In the face of what appeared to be insurmountable obstacles he steadily persevered with his project. Difficulties only imparted zest to his persistence. In spite of the fact that the railway companies, in whose interests he was working as well as his own, frowned upon his scheme, coming to regard him as a man of an impracticable craze, he stolidly fought his way through all, and it was by his own exertions solely that he at last forced his new sleeping-cars upon the public, who, when once the luxurious vehicles were placed at their disposal, were only too ready to patronise them, thus at once falsifying the predictions of the railway pessimists, who ought to have been the best judges of the matter.

Mr. Pullman and the Pullman Company have always been equal to any emergency that has arisen. At exceptional periods they have been able to make exceptional efforts. For instance, at the time of the World's Fair in Chicago they put on 400 extra cars to accommodate visitors to the great show. These cars were built at a cost of £1,200,000, the object being not merely to supply the demand for that year but to provide cars for any future emergencies, such as the transportation of people to great conventions, encampments, conclaves, and other national gatherings. At the Chicago Exposition, six special Pullman cars were exhibited. These included the compartment "sleeper" "Ferdinand," the sleeping-car "America," the dining-car "La Rabida," the parlour-car "Santa Maria," the library and observation-car "Isabella," and the smoking and baggage-car "Marchena." They formed the finest exhibit of the kind ever seen, not even surpassed by the special exhibits at the Paris Exposition of 1900. These Pullman exhibits were a revelation to European visitors and were the means of procuring large orders.

Referring once more to the old "Pioneer" sleeping-car, it may be of interest to mention it has been run so long and so well over the Chicago and Alton system that its mileage has equalled four times the circumference of the globe, while it enjoys the distinction of having at one time or another carried as passengers most of the great men of America. It was operated continuously on the Chicago and Alton line except when it was sent to Washington to convey the remains of President Lincoln to their last resting-place at Springfield, Illinois; and again when, on the outbreak of the war between the United States and Spain, it was put into special service as a transport car and was sent to the encampments in Georgia, doing its full share of the work of conveying troops to the points of embarkation.

Mr. Pullman died some three years ago, leaving a widow and two sons, though the latter have not been associated with the Pullman Company. In truth, although Mr. Pullman left behind him a colossal fortune, he only bequeathed a small yearly income to each of the sons, they having during his lifetime shown such a disregard for business pursuits as to incur his serious displeasure. The company, which it was the work of his life to establish, and which while he lived he directed with so much energy and ability, continues its course of unabated prosperity under a management that has inherited all the Pullman methods and traditions. It is to-day the greatest railway rolling-stock enterprise in the world.

CHARLES RANLETT FLINT

THE RUBBER KING OF AMERICA

A "Rubber King" would seem to an Englishman to be a toy potentate rather than an industrial reality; still, it is one of the sturdy facts of the time in America that many men who have been manufacturers of and dealers in "rubber" articles have become millionaires, and are among the most distinguished people of the country. Chief among these "rubber" magnates is Mr. Charles Ranlett Flint, the subject of this paper, who has done for this particular industry what Mr. Carnegie has done for the steel trade and Mr. Rockefeller has done for the oil trade. He has concentrated numerous scattered interests into harmonious combination, and brought the rubber trade of the United States into line with the other giant trust organisations, greatly to the profit of, firstly, himself, and, next, to other leading participants in rubber consolidations.

An American Speciality.

Rubber is one of the articles of commerce in which America has held the lead for many years. Indeed, nearly all the later developments of the industry are to be credited to our cousins across the seas. Until 1820, when Mackintosh invented a process of using rubber as a waterproofing material and gave his name to a class of overwear that has come more and more into popularity year by year, caoutchouc did not figure prominently in industrial statistics. So far back as 1735, the naturalist, De la Condamine, in publishing a description of it, suggested many commercial purposes to which it might be put; but in spite of this it was of little service except

CHARLES R. FLINT

THE RUBBER KING

From a Portrait by ROCKWOOD, *Broadway, New York*

as rubber for effacing pencil-marks until Mackintosh and Hancock took it up. The whole trade was revolutionised by Mackintosh's invention, which made rubber workable in solution. He had two methods of waterproofing. One was, to spread a solution of the caoutchouc over the surface of the cloth; the other was, to place it between two layers of the texture and submit the whole to pressure sufficient to insure cohesion. After this notable achievement vast possibilities seemed to open up to the adaptability of rubber, which was soon utilised in a variety of ways that had never before been dreamt of. Elastic webs were introduced for braces, garters, and the like, and certain French manufacturers went a step further than Mackintosh had done, devising a process whereby the prepared caoutchouc could be separated into fine threads that could either be combined with silk, cotton, or wool, or converted into separate threads capable of being woven like threads for ordinary textile fabrics.

Thenceforward the rubber business expanded at a marvellous rate, and instead of being, as in the old days, one small industry supplying schoolboys with rubbing-out material, it developed into a score of separate industries, producing an endless variety of rubber commodities of great utility. Then it was that America took up the business with characteristic energy, and soon outdistanced all rivals in the extent and diversity of its rubber products. Rubber shoes—or goloshes, as they were originally called—were invented by Goodyear, an American, about 1830, and ever since this particular branch of the trade has been largely confined to the United States, where rubber footgear is much more worn than in England. To-day, rubber is employed in the production of a thousand and one different articles, and its sphere enlarges every year. It is used for tyres of carriages and bicycles, belting, packing, tarpaulins, mats, tobacco pouches, noiseless axles, lifeboats, railway buffers, surgical appliances, toys, hose, pipings, air-cushions, washers, and so on, and has proved of immense benefit to the world by its wonderful adaptability, its uses being mainly in the direction of increasing the comforts and conveniences of life.

THE SHAPING GENIUS.

When Charles Ranlett Flint came upon the industrial scene the rubber industries of America were in full and active swing, but he thought they needed shaping and adapting to the circumstances of the time. The trend of things was towards consolidation, and Mr. Flint thought that what was capable of being accomplished in that line with one trade could be done with another. He knew something of the rubber business. Indeed, he knew a great deal about it, having been in touch with it at many different points, and being a man of action as well as a thinker, he set himself the task of organising the now famous United States Rubber Company, which has a capital of about £10,000,000, and in 1900 paid a dividend aggregating over £500,000. So large has Mr. Flint's name loomed of late years in the realm of rubber, that many people think of him only in this connection. A glance at the incidents of his career will show that besides being pre-eminently the controller-in-chief of the rubber interests of America, he has also been a highly successful organiser in many other fields of industrial activity.

SCHOOL DAYS.

Mr. Flint is of Welsh descent, and could probably, if need be, trace his genealogy back to one of the ancient bards of the Principality. At present, however, he does not care to go further back than to the Thomas Flint who emigrated from Wales in 1642, and settled, along with other pious Puritans, in Salem, Massachusetts, of which Nathaniel Hawthorne wrote so lovingly and so well. Perhaps when Mr. C. R. Flint has added a few more millions to his fortune he will desire, as so many do under the prompting of affluence, to follow the pedigree back to more remote times. Be that as it may, the Flint family continued to reside in and near Salem for many generations, until, in 1858, Benjamin Flint, the father of Charles R. Flint, removed to Brooklyn, New York, and connected himself in some way with the local shipping interests. At that time Charles Flint was a boy of eight years of age, having been born in 1850, and was too young to think of a career. He took to his schooling eagerly, however, and, first at the public schools of Thomaston, Maine, and afterwards at the private school of Warren Johnson, of Topsham, Maine, received a good grounding in the ordinary elements of education; later on joining the Polytechnic Institute of Brooklyn, where he was a successful and popular student, being made president of his class, as well as of the Polytechnic Alumni.

THE DAWN OF GREAT IDEAS.

After leaving school, young Flint obtained a position as dock clerk in New York City. Later on, he spent two years with a shipping and commission house trading with the West Coast of South America. It was while in this occupation that he had his mind first directed towards the warm countries of the Southern Pacific. It soon dawned upon him that there were trade openings in that quarter of the world that were capable of being turned to highly profitable account, and, as will be seen, he has always been ready to avail himself of any opportunities that have presented themselves of forming business connections with those countries. In 1871 he was tempted into the ship-chandling business, becoming a partner in the firm of Gilchrist, Flint, & Company; but did not develop fast enough for him in this line, so in 1872 he became the "Company" in the firm of W. R. Grace & Company, shippers and traders with South America. South America was El Dorado to Mr. Flint, as it had been to so many adventurous souls in the olden time, only there was this difference in the outlook between the men of the past and the man of the present—they went in search of treasures and Utopia; he was only intent upon fair trade and honest profit. It was like the realisation of a golden dream to him when, in 1874, he proceeded to South America and made his first business tour through Brazil, Chili, the Argentine Venezuela, and Uruguay. He saw during that deliberate and well-planned journey many things that escaped the eye of the ordinary tourist. He saw vast communities who might be induced to become purchasers of articles of American manufacture, on the one hand; and on the other hand, he saw great resources in the shape of raw materials that could be profitably utilised in America. He saw splendid opportunities for the employment of American capital in the development of the great South American cities; and he determined to open up business connections with those places without delay. Wherever he went, Mr. Flint made his personality felt. Brimming over with energy, quick of perception, intelligent and tactful, he made many valuable friends on the West Coast, where he remained for about a year, accomplishing many things and gaining a knowledge of the country which has ever since been of the greatest use to him. At Callao, in Peru, he organised the firm of Grace Brothers & Company, in connection with his New York house, and established many valuable agencies. Few men understood the business situation in South America so well as Mr. Flint did when he left the country and returned home. That trip was doubtless a costly one, but it was one of the best investments he ever made. On his return he was appointed Consul of Chili, and during the absence of the Charge d'Affaires was entrusted with the archives and correspondence of the Chilian Legation in the United States. Mr. Flint held this post until the Chilian Republic declared war against Peru in 1879, when, owing to the relations of his firm with the Peruvian Government as financial agents, he cabled his resignation to Peru and placed the affairs of the legation and the consulate in charge of a Chilian official then in New York. But this was by no means the end of Mr. Flint's diplomatic career. Subsequently, he was appointed Consul of Nicaragua, and represented that country in negotiations with the parties who are now the concessionaries of the Nicaragua Canal in the United States. It was a great tribute to Mr. Flint's ability that while still but a young man he should have been singled out for appointments of such official importance, and there is little doubt, had his ambition been in the direction of diplomacy, he might have made a name for himself in that connection. But Mr. Flint's instincts were distinctly commercial, and it was in the region of trade and industry that he was destined to make his mark.

MR. FLINT'S FORESIGHT.

So far back as 1878, Mr. Flint foresaw that the inevitable course of business was towards consolidation. Many industrial undertakings had even then been brought into alliance with each other on the trust plan, and it occurred to Mr. Flint that the time was favourable for combinations generally. Without relinquishing his hold of his own proper business—which he had worked so hard to develop, and which meant so much to him—he began to survey the industrial field more closely, and, after considering many projects that his busy brain engendered, he at last made up his mind to make his initial attempt at industrial organisation by grouping together a number of lumber businesses. It was not the easiest matter in the world to accomplish this, but, after a good deal of negotiation and financial adjustment he ultimately succeeded in forming the Export Lumber Company, Limited, which is still one of the most prosperous concerns of the kind in the United States. It was a great achievement in those days, and brought Mr. Flint into prominence. The businesses taken hold of by the company were situated in various parts of the North American continent, and at the present time it has yards in Ottawa, Montreal, Boston, Portland, and New York, and carries stocks of lumber in West Virginia, South Carolina, the Adirondacks, New Hampshire, and Michigan, handling over 200,000,000 feet of lumber per year. So successful was this organisation that Mr. Flint was always on the look out for other opportunities in the same field, and only last year (1900) was able to form another important combination of lumber trade interests, succeeding in organising the Atlantic Coast Lumber Company, with headquarters and mills at Georgetown, South Carolina, and a capacity of 500,000 feet of lumber per day. In connection with the operations of this company, and in order to place its products on the market more advantageously, Mr. Flint has established the Atlantic Coast Steamship Company, which owns four new steamers built especially for the lumber-carrying trade, and plying between Georgetown and the ports of the northern coast of America.

GOING AHEAD.

When once Mr. Flint had embarked on the career of an organiser of industries he went ahead with the work. After his first venture in lumber he gave his attention to the electric lighting industries, and conceived the fascinating idea of bringing about the consolidation of the leading companies, including the Edison, the Brush, the United States, the Thomson Houston, the Jablokoff, and the Western Electric Light Companies. But the idea was too big. Mr. Flint was a little before his time. True, there was a new organisation formed, under the title of the Graeme Company, in which all of the undertakings named were more or less interested, but unfortunately Mr. Flint was not a neutral party in the scheme, being president of the United States Electric Light Company, and therefore not sufficiently independent. The lesson of this failure was not lost upon him, however, for it showed him which was the best track. Since then he has never attempted to bring about a consolidation in which he had any previous pecuniary interest. By taking this stand he has been able to command the confidence of manufacturers, who thus feel that their businesses are safe from being divulged to competing interests. Various combinations of electric lighting companies have been effected since Mr. Flint made his first attempt to unite these organisations, but none on so comprehensive a scale as that which he projected.

Charles Ranlett Flint

A BELIEVER IN TRUSTS.

It is to be presumed that Mr. Flint studied the ethics of trusts and drew his own deductions on the subject before entering so conspicuously upon the work of trust extension. At all events, he believes in trusts. And it is, perhaps, natural that he should, for a man usually has faith in the thing in which he has achieved success. To Mr. Flint the industrial combination which we term a trust is the necessary outcome of civilisation, and not only represents the centralising of manufactures, which permits the highest development of special machinery and processes, but is a great cheapener of products, operating to the benefit of the masses as well as of the trust magnates. It is as easy to refute these arguments as to state them, perhaps, and Mr. Flint can hardly be called a disinterested party. The solution of the problem lies with the future.

In the course of his own firm's business dealings, Mr. Flint was drawn closer to the special industry in which he ultimately made his fortune, and in 1881 the idea occurred to him that there might be a fine opportunity for exercising his powers of organisation in the bringing together of the crude rubber industries. He found everything ripe for his gathering. Four of the biggest firms in the trade were united in one concern, and Mr. Flint was induced to accept a managerial position in it. For a few years he worked hard in the business, which interested him greatly, and at the end of the third year he visited Brazil in the interests of the company, spending a considerable time in the region of the Amazon, acquiring a thorough knowledge of the handling of the rubber business from the raw material to the manufactured article. He established branches in different parts of Brazil, bringing about a more direct connection than had theretofore existed between the markets of production and the manufacturing company. Since that time the organisations in which Mr. Flint has been the leading spirit have handled crude rubber to the value of over £50,000,000.

Capacity for Work.

But Mr. Flint had great administrative capacity. Not one or half-a-dozen undertakings served to gratify his eagerness for work. In 1885 we find him in partnership with his father and brother in a general commission and export business, trading with South America, Australia, and South Africa; but, no matter what else he might do, he never ceased to take an active interest in the rubber industries, and it was not long before he embarked upon another of his great schemes of rubber trade unification. This time he wanted to connect the manufacturers of rubber boots and shoes into one organisation. Being himself at that time the most important dealer in crude rubber in the United States, and knowing every ramification of the trade, he succeeded where others had failed, and the trust was formed. It was in 1892 that the United States Rubber Company was floated, with a capital of nearly £10,000,000.

This was the biggest achievement that Mr. Flint had up to that time accomplished, but he did not let his efforts rest at that. After the United States Rubber Company had been successfully launched he turned his attention to the manufactures of rubber goods other than boots and shoes, and contrived the fusion of five large companies engaged in making belting, packing, clothing, and druggists' sundries. This new trust corporation was called the Mechanical Rubber Company, and continued its operations successfully until, in 1889, it became merged in the larger enterprise of the Rubber Goods Manufacturing Company, also engineered by Mr. Flint.

Notwithstanding his successful work as an organiser of great industrial combinations, Mr. Flint did not neglect the business of his own firm, but kept his eye on the export and import affairs of Flint & Company, which firm, after sundry changes, additions, and amalgamations became, in 1900, the American Trading Company, with a capital of £800,000.

AN ORACLE ON COMBINATION.

Mr. Flint's reputation as a promoter of combinations is so great that he is frequently appealed to by business houses desiring to effect arrangements of this kind, but he always declines handling undertakings he is not fully conversant with, or where excessive capitalisation is demanded. In 1899 he organised the American Chicle Company, with a capital of £1,800,000; the Sloss Sheffield Steel and Iron Company, capital £400,000; the American Caramel Company, £520,000; the United States Bobbin and Shuttle Company, £460,000; the American Clay Manufacturing Company, £2,500,000; the International Emery and Corundum Company, £500,000; and the International Starch Company, combining the chief starch interests of the country, with a capital of £2,700,000.

The ground covered by these various enterprises was enormous. Yet with all these affairs on hand Mr. Flint found time to render valuable services to his country in times when patriotism seemed to demand that he should do so. In the winter of 1889–90 he acted as delegate to the International American Conference, at which all of the American Republics were represented, and to which he was appointed by President Harrison on account of his intimate knowledge of South American countries. Mr. Flint also represented the United States on the Committee of Banking a few years ago, when his proposals for the establishment of an International American Bank, with headquarters in the United States, and branches in all the other Republics, were ratified by the Conference, endorsed by President Harrison and Secretary Blaine in two Messages in which the action of Congress was urged. A Bill was subsequently endorsed in Congress embodying Mr. Flint's recommendations. Later on, as a member of the Committee on Customs Regulations, Mr. Flint advocated the organisation of a Bureau of American Republics to promote a uniform system of obtaining statistics of trade between the Republics.

AS GOVERNMENT ADVISER.

In matters concerning South America, indeed, Mr. Flint has often been called upon for advice and aid by the Government at Washington. When the question of the recognition of the Republic of Brazil was under consideration, Secretary Blaine wrote in the following terms to Mr. Flint: "It is important that you return to Washington as soon as possible; your services in the Conference are so valuable that we need you every hour, though I am asking much of you to be here so constantly when your large business demands a great deal of your attention. But just now it must be patriotism first and business afterwards."

After the adjournment of the Conference, Mr. Flint was induced to act as confidential agent of the United States in negotiating the first treaty of reciprocity with Brazil, and he successfully accomplished this delicate task, which provided for a concession in tariff duties on products received by Brazil from the United States. This treaty was the key to the reciprocity situation, and became the basis of similar treaties with other American Republics, proving of especial value in the negotiations with Spain when Cuba and Porto Rico were thrown open to American products. At first the Spanish Government had been averse to this; but by meeting its objections by the free admission into the States of Brazilian sugar, Spain was compelled to agree to a treaty by which the products of American farms and factories were admitted to Cuba and Porto Rico at reduced rates of duty in consideration of the United States admitting their sugar free.

At the time of the strained relations between Chili and the United States, in 1890, Mr. Flint was invited by Secretary Blaine to take part in the efforts then being made to obtain a peaceful solution of the question at issue. Mr. Flint at once proceeded to Washington and had a private conference with Mr. Blaine. The position was an extremely critical one, and matters were fast drifting into a condition that threatened an interruption of friendly relations between the United States and Chili. Mr. Blaine was in favour of arbitration, and, with this idea in view, Mr. Flint took upon himself the duty of endeavouring to bring about the mediation of the Brazilian Government. He sought an interview with the Brazilian Minister, and having put the matter in a proper light before that functionary, the latter agreed to telegraph to his Government making the desired suggestion, on his own responsibility, and not as if emanating from the Government at Washington. Everything was carried out as proposed, and the difficulty was settled.

MANY HONOURS OFFERED.

Many honours have been offered to Mr. Flint which he has felt unable to accept. The Venezuelan Government wished to confer the Order of Bolivar upon him for his service to the cause of international arbitration; and in 1891 he was offered the post of Consul-General for Chili. But, although he had to decline these marks of favour, he was not prevented from continuing his good offices from time to time on behalf of the South American Republics. When the Brazilian navy was in revolt in 1893, President Peixoto applied to Mr. Flint for immediate assistance, entrusting him with the responsible duty of organising a new Brazilian fleet. The task was one which would have dismayed most men, but Mr. Flint, long inured to the overcoming of obstacles, accepted it without hesitation. Having a free hand, and knowing exactly what was required, he made immediate purchases of important vessels of war, and soon put the President of Brazil in a position of safety as regarded his navy. By this swift action the restoration of the monarchy in Brazil was probably prevented. A secession of the Northern provinces had been imminent, but the quick recovery of maritime power had the effect of quelling the spirit of rebellion. Amongst the purchases made by Mr. Flint for the Brazilian Republic were Ericson's war ship *Destroyer*, and the swift sailing-yachts

Feesen and *Javelin*, the two latter being promptly converted into torpedo boats under Mr. Flint's direction. He also bought a Yarrow torpedo-boat in London, and had it immediately despatched to Brazil. Mr. Flint's other purchases of ships of war comprised the *Cid*, a steel merchant-steamer of 6000 tons displacement, which was one of the latest additions to the Morgan liners. It came into the port of New York on October 26, 1893, with a full cargo, and within twenty-three days of its arrival, viz., on the 18th of November, it had been transformed into a magnificent ship of war. When she sailed out of the bay again, under the new name of *Nictheroy*, she was a powerful cruiser, with a pneumatic gun capable of firing shells containing from 100 to 500 lbs. of dynamite, 22 Hotchkiss rapid-firing guns, 4 torpedo launching tubes, and 3 torpedo boats fully equipped. A similar feat was performed with the *Britannia*, an iron steamer of 2600 tons displacement, which entered the port of New York on November 6, went into dry dock, was fitted with 16 rapid-firing guns, 4 torpedo launching tubes, a Sims-Edison Dirigible torpedo, and, re-named the *America*, was ready for her voyage on November 24. This new fleet, whose staff of officers were all graduates of Annapolis, was capable of discharging 4500 tons of dynamite simultaneously.

BECOMES JAPANESE AGENT.

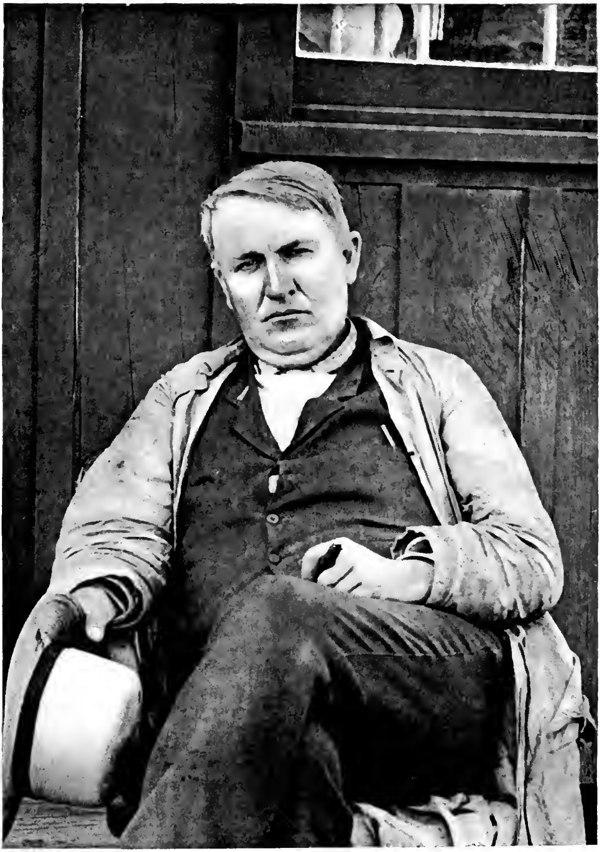
In 1894 Mr. Flint was suddenly called upon to act as agent of the Japanese Government, and commissioned to buy a vessel of war with all speed. The result was the purchase of the *Esmeralda*, a crack cruiser of the Chilian navy, built by Armstrong, Mitchell, & Company. This ship was delivered to Japan while the war with China was in progress. It is probably the only case that could be cited of an important vessel of war having been sold to a nation actually at war.

Again in 1898, both before and after the war with Spain, Mr. Flint's services were requisitioned by the United States Government. He arranged the purchase from Brazil of the cruiser *Nictheroy*, which he himself had furnished to Brazil five years before. This vessel, re-christened the *Buffalo*, made record time between New York and Manilla in the conveyance of troops and supplies. Mr. Flint was also of great use to his Government at this period by being able to supply timely information through his agents of the movements of the Spanish fleet. He gave the authorities at Washington the first news of the sailing of the Spanish vessels from Cape Verde, and, twelve hours later, was able to indicate the direction in which the fleet was steaming. Mr. Flint also advised the Government of the sailing of colliers to a rendezvous with the Spanish fleet off the northern coast of Venezuela. Furthermore, he obtained intelligence of various negotiations entered into by agents of the Spanish Government at different ports for the purchase of war vessels and supplies, and blocked the operations at every point.

It has been wisely said that "to him that hath shall be given." So it has been with Mr. Flint. He had many businesses, and more were offered to him; he had many directorships, and more were given him. The wonder is how he could find time for so many enterprises. Apart from the industrial undertakings with which he has been more especially identified he has been connected with the management of numerous financial institutions in New York, and is a director of the National Bank of the Republic, the Produce Exchange Bank, the Knockerbocker Trust Company, and the National Surety Company. He is also a director of the American Ordnance Company, the Hastings Pavement Company, and the Manaos Railway Company, as well as of the various corporations previously referred to. It was Mr. Flint who organised the Manaos Railway Company, which built and is now operating the trolley lines in the city of Manaos, Brazil, a thousand miles up the River Amazon. In the same city he also installed an electric-lighting plant, furnishing the city with public and private lighting; and at the present time he has several other schemes in contemplation for the improvement of Manaos, from which city the best quality of crude rubber is obtained—a fact which explains his intimate connection with it.

INTERVALS OF RECREATION.

But with all his pressure of affairs, his incessant organising and his endless moulding of men and industries, he has never been too busy for recreation. At times the magnitude of his interests has seemed overwhelming—engrossing beyond escape—but in the thick of it all he has managed somehow to do some shooting, or fishing, or yachting nearly every week in the year. He is a member of several shooting and sporting clubs, so that he not only gets recreation but a good variety of it. There are few keener sportsmen. His guns have echoed in the cañons of the Rockies, out on the hills of Canada, and amidst the broad plains of South America. In yachting he has won no little distinction. He was the owner of the sloop *Gracie*, which has probably won more prizes than any other yacht in the United States; and he was one of the patriotic syndicate which built and raced the *Vigilant*, the yacht that defeated the *Valkyrie* in the contest for the America Cup. In January of this year (1901) Mr. Flint saw the launching of his handsome new steam yacht *Arrow*, designed to beat the Parsons' turbine boats, and constructed on a novel plan, admitting of its being converted into a torpedo boat in a few days. It is expected to reach a speed of forty-five knots an hour. By this experiment Mr. Flint hopes to demonstrate the possibility of making private yachts a sort of naval reserve on which the Government may rely in times of emergency. Mr. Flint is a member of the Union, Century, Riding, Metropolitan, and New York yacht clubs, and also belongs to the New England Society.



A SNAPSHOT OF "THE WIZARD"
(THOMAS A. EDISON)

By ROCKWOOD, *Broadway, New York*

EDISON—"THE WIZARD"

THE STORY OF AMERICA'S GREATEST INVENTOR

UNTIL within the last fifty years America did not count for much in the realm of invention. Fulton had done honour to the country by inventing an improved steamboat; but after Fulton there was a long dearth of inventors of mark. In fact a good many Americans had come to the conclusion that there was nothing much left to invent, so adequately did that particular sphere seem to have been filled for them by the great labour-saving contrivances which Europe—and particularly England—had placed at the service of those who were concerned in the development of the country's manufactures and industries. In those days America was an ingenious and active adapter of the inventions of other nations, but concerned herself little with inventive problems of any magnitude. There was plenty to do to bring the new country abreast with the older nations in matters of mechanism, without its troubling itself with much else. So the years rolled on, and first in the textile branches, and then in the industries connected with iron and steel and the construction of machinery, America worked herself up and up, extending her operations year by year until in point of quality of production she came not far behind England herself. Then the busy American workers began to think for themselves somewhat, and from being mainly utilisers of other people's inventions, became inventors on their own account, and when once they set to work in this direction it was astonishing how much they accomplished in the course of a decade or two.

In the vast field of the textile manufactures they had had so much provided ready to their hands in the great inventions of Kay, Hargreaves, Crompton, and Arkwright, that there did not appear to be much of an opening on those lines, but in the newer developments of a scientific order in which electricity was to play such a leading part, they had their opportunities with the rest of the world, and did not neglect to avail themselves of them. In the sewing machine American inventors had already shown how keenly they were alive to the smaller range of domestic inventions, and in the introduction of the type-writing machine and the originating of contrivances in aid of manufacturing processes—particularly in the handling of material and the supersession of manual labour—they achieved much that was of importance. They also got in advance of the rest of the world in the production of innumerable numbers of those smaller inventions which, without adding materially to the industrial greatness of a nation, are still of considerable service in the routine of daily life. Such articles as safety-razors, potato-peelers, knife-sharpeners, egg-beaters, carpet-sweepers, and a thousand and one other odds and ends of inventive smartness—"notions," as the Americans term them—were put upon the market in rapid succession, and revealed an amount of ingenuity that seemed to foreshadow great things in the time to come. And the time did come, when bolder and more original efforts were made, and America began to be looked upon as a really important contributor to the elucidation of the mightier problems of science and invention.

In this later work of scientific evolution one name has stood out in front of the rest, and that is the name of Thomas Alva Edison, who takes precedence of other American inventors in the domain of electricity and its kindred sciences. Mr. Edison may be said to have swept almost the whole gamut of inventive effort, from cockroach-killers to iron-smelting, and from toy railways to kinetoscopes, and his fellow-citizens are always expecting some new inventive surprise to be sprung upon them by him. He does not simply confine himself to a solitary laboratory where he sits alone night after night, like old Faust in his studio, asking of heaven and earth to reveal to him their mysteries. He does not waste his time upon the working out of abstruse theories, or the bringing into harmony of conflicting elements. No; he is an American, and practical from first to last, and in all that he does has a keen eye to the present utility of his labour. He is not one of the noble army of martyrs who sacrifice themselves on the altar of science; he is not solely building up mechanical wonders for the advantage of posterity; he is a man of the time, of to-day, of the present hour, and is in close touch with the workaday world at every point.

Hundreds of inventions stand in Edison's name, and a goodly proportion of them have come into use and are yielding him valuable pecuniary returns. In the estimation of his countrymen he is the great wonder-worker of the day, to whom the appellation of "wizard" or "magician" does not seem to be at all strained. So much has been written about Mr. Edison that his personality is fairly well known, even to the British public. Still, the story of his life as a whole has not been often told, and will well bear re-telling at this stage, with the addition of such facts as have come to light within the last few years; for his is a character that it is instructive to study, it is so very exceptional in its main incidents, and includes some of the most striking achievements of modern inventive effort.

Mr. Edison was born in 1847, in a humble home in Ohio. It is not recorded of him that he showed any special gift of invention or anything else during his boyhood. He was smart and active and vigorous, and not over fond of school, getting along anyhow up to the age of fourteen, when he first became connected with the press in the capacity of newsboy on a railway train. To this period of his early life he always refers with enthusiasm, and when a New York reporter is hard up for "copy" he will run over to

Edison's New Jersey home and get him to talk a column or so on his newsboy days, which the inventor seldom declines to do. It is not always easy, perhaps, to deduce the precise line of demarcation between solid fact and Edisonian invention in these narratives, but they are greedily devoured, and usually form good light reading.

Edison, indeed, has been more interviewed and written about in the newspapers than any man of his time, probably. He seems to enjoy it, and, possessing a ready wit, and perhaps knowing the value of advertisement, is generally good game for the enterprising journalist. For a man so absorbed as he is in the work of invention, who is always engaged upon a number of serious investigations, and who has to direct and control the working of what may be styled an invention factory, in which a large staff of men of inventive ability are kept incessantly employed in carrying on experiments and perfecting schemes of invention, it is remarkable that he should be able at any moment to lift himself out of his scientific surroundings and enter glibly into the lightest of light conversation, with all the *abandon* of irresponsible youth. As a rule he is a very accessible man, and knows what kind of stuff the American people like to read. They want amusing, and he amuses them; they want new "fairy tales of science," and he supplies them; they want to be told laughable tales of his boyhood life, before he had discovered his *metier* and begun to mount the ladder, and he is pleased to relate them; they want to have their organs of wonder excited by hints of wondrous inventions that he is hatching for the revolutionising of the world, and he is as inventive in this order of work as in the labour of his laboratory.

Not long ago a New York reporter waited upon Mr. Edison at his "factory" at Menlo Park, New Jersey, and congratulated the "wizard," as he is called, on his vigorous health. "Yes," said Edison, "I am well enough, thank you, considering my age. This is my 998th birthday. You didn't know I was so old as that, did you? Man, that's nothing—just nothing. I expect to be at least 1500 before the 4th of July. It's the newspapers, bless 'em," continued the electrician gaily. "It's all right; I haven't gone crazy or anything. I just made the remark because a clipping bureau has sent me an entirely new Edison story, and it raises the date. You see, we've been amusing ourselves at home, among ourselves, by collecting these yarns and calculating how old I should have to be to live through all the adventures they have me down for. When we quit last night I was only 970, but the bureau boost me twenty-eight years this morning."

When, however, Mr. Edison can be induced to indulge in autobiographical reminiscences he is entertaining and happy; nothing seems to please him better than to recall the days when he was a train-boy, selling newspapers, candy, books, fruit, and what not, to passengers on the Grand Trunk Railway. His run used to be from Port Huron to various points on the line. In those days Edison had not the remotest notion of ever becoming an inventor. In fact, he had never been brought into contact with inventive effort of any kind. He was a bright boy, full of "go" and fun, and sharp as a needle. The great problems of science were as yet absent from his thoughts. Not long ago, referring to his youthful train experience, he told the following story:—

"In selling pea-nuts on the train there was a good deal of art necessary. The pea-nut trick was about the first thing they taught us before we were considered fit to go on the road. In those days the boys sold from a basket holding the pea-nuts in bulk. We were given a little tin measure to sell from, which was smaller at the top than lower down. If you worked it right when you shoved the measure through the nuts in the basket they would jam about half-way down the measure. The purchaser would spread his pocket, and you shot in the half measure of nuts with as much care as if he was getting full measure. No kicks went when once the nuts were in the customer's pocket. Well, well, it's a long time ago, but I shall never forget the time when the pea-nut bridge broke down before I had a chance to dump the nuts into the customer's pocket. I lost the trade, but on the next trip I got even, for I sold every blessed thing I had on the train—pea-nuts, candy, newspapers, yes, and even my basket and the company's store box. But I didn't always get it my own way, for all that. In those days they used to run trains made up of three coaches—a baggage car, a smoker, and what was known as the ladies' car. The ladies' car was always run as the rear-end coach. The day after I had had the turn-up with the man who saw how the pea-nut trick was done I seemed to be in hard luck. I had worked the smoking-car pretty thoroughly, till there didn't seem to be more than fifty cents on it. The ladies' car was not looked upon as a gold mine at the best of times, and I kept out of there for some time. When I had carried the basket in I had noticed two young fellows sitting together near the rear end of the car. They were dressed to kill, and were altogether the sort of people that a youngster like me felt he had to have some fun with. Behind them sat a coloured man. He had a brass bandbox beside him on the seat, and seemed to be the servant of the two young men. As I made my way down the car I could hear these young fellows complaining of the dulness of things on the railroad. I gathered from their talk that they were Southerners who had come up from the South on a spree, designing to astonish the North. When I reached the Southerners I ran through the usual list of articles—pea-nuts, apples, figs, maple-sugar, and the rest—and asked them if they wanted any. They said they didn't. Then I asked them if they wanted any books, papers, or magazines. 'No,' said the Southerner nearest to me, 'we don't want any; moreover, young man, we have decided that we will protect the other people on this train against the perils of dyspepsia, whether of the body or the mind.' With that he grabbed the basket out of my hands, and, before I could move, emptied its whole contents out of the window. Then he handed me back the basket with a polite bow. I was so astonished that I could do nothing but yell. I just stood there and yelled at him—didn't say anything—just yelled. The other people in the train came bustling up. 'This youth seems to have some trouble with his throat,' said one of the young men to the other, without even a smile, and a few minutes later we were at our destination, and, after chucking me a dollar, they alighted."

It was during the Civil War that young Edison made his start in selling newspapers, sweets, and so on. One of his main deals was when the news had been received of the battle of Pitts Landing, when he induced the editors of the *Detroit Free Press* to let him have a thousand copies of the paper for sale on the train. From news-vending he in time got to news-supplying, and possessing himself of an old press and some still older type, he managed to print a sort of an apology for a newspaper on one of the Grand Trunk cars, calling his sheet the *Grand Trunk Herald*. It was an ambitious effort, and taxed both his ingenuity and his pocket a good deal; but the passengers fell in with his whim, and paid their money for the unique sheet with the greatest readiness. Thus encouraged, after a time he ventured to bring out a comic journal, which he called *Paul Pry*, publishing it in the same way as his other paper, and from the same publishing-house. Into the new sheet he introduced many personalities, sometimes smart, sometimes insulting, and all went smoothly until one day a subscriber took offence at something that had been said about him, and gave the editor an admonishing dip in the river. After that, one misfortune followed fast upon the heels of another, until the climax was reached by his upsetting a phosphorus bottle, which nearly set the train on fire, and led to the confiscation and destruction of the whole of his printing materials, leaving him for the moment despondent and humiliated.

A TURNING POINT.

Not long after this incident an event happened which proved to be the turning point of his life. He had the good fortune to rescue a railway servant's child from being run over by a locomotive, and the father, anxious to express his gratitude in some practical way, offered to teach Edison the art of telegraphy, in which the future inventor had already begun to take a lively interest. He proved to be an eager scholar, and soon mastered all there was to master in the matter of sending and receiving telegrams, and a little later on he obtained a position as telegraph operator on the railway. He does not appear however, to have been quite so assiduous in his duty as might have been expected in one who was so desperately in earnest, for he had not been long at his new employment before some act of omission or commission nearly caused a collision on the line. The result was a "carpeting" before the general manager. Referring to this incident, Mr. Edison delights, with mock seriousness, to recall the tones and gestures of that important individual, as he uttered the following words of warning: "Young man, this offence of yours is a very serious one, and I think I shall be obliged to make an example of you, and have you sent to the penitentiary for five years, and then——" "Just at that moment," explains Mr. Edison, "two English swells came in, and Mr. Spicer, the manager, now all affability, rose to greet them, and they engaged him in conversation. As I could not see that they really needed me, I slipped quietly out of the door and made for the freight depôts, where I found a train about to start for Sarnia. I knew the conductor, and told him I had been in Toronto on a little holiday excursion, and said I would like to take a run up the line with him. He told me to jump aboard, and I was not long in getting out of sight, but my pulse did not get down to normal work until the ferry-boat between Sarnia and Port Huron had landed me in the latter town."

FROM PILLAR TO POST.

From that time forward for a few years Edison led a somewhat unsettled career, being most things in turn and nothing long. Most of the time, however, he was connected in some way or other with telegraphy, and at length he made his way to Boston, tramping the whole distance from his house in Port Huron to Boston in four days and four nights. Here he was fortunate enough to obtain employment in the manager's office, and in the course of a few months made many friends, and began to show signs of the inventive genius that was within him. He applied himself resolutely to the study of science, especially electricity, remaining in Boston until he was twenty-one, when he proceeded to New York, arriving at the Empire City in an almost penniless condition. Strolling along Wall Street one day he noticed a crowd assembled near the Exchange, and pressing forward he learned that there was something amiss with the telegraphic communication. Here was an opportunity for him to show his knowledge, so he walked into the office around which the people were collected—which was the Gold and Stock Telegraph Company—and inquired what was wrong, offering at the same time to put the apparatus in order. He was allowed to try what he could do, and, to the astonishment of the manager, he had the thing in perfect working condition in a few minutes, and, as a result, was engaged there and then as electrician at a salary of £60 a month.

FIRST ELECTRICAL INVENTIONS.

He now found himself suddenly advanced to a position of comparative competence, the salary that he was drawing being far in advance of anything he had previously earned, while his work was not so arduous but that he could spare time to continue his investigations, and it was while in this employment that he brought out his first invention, which was the stock printer. This was followed up by sundry other inventions in applied electricity, and before long the company he was with made him an offer of £8000 for his patents.

Mr. Edison makes the following reference to this period of his career: "I could have been knocked down with a feather, so astonished was I at the sum, and I concluded there must be some Wall Street trick about the thing, and thought if ever

I got a cent I should be lucky. After signing the agreement I received the cheque and proceeded to the bank with it. I had never been in a bank before, so I hung around in order to see the methods of procedure, then took my place with a row of people at the paying teller's window. When my turn came I presented the cheque, and the paying teller yelled out a lot of jargon, which I failed to understand on account of my deafness. Again he roared at me, but I could not catch it, so I left my place and passed on. Sitting dismally on the steps of the bank I concluded I was fated never to see the money, and so hopeless did I become that any one might have bought that cheque of me for £10. However, I went back and told one of the clerks in the company's office, when he explained that the teller evidently wanted me to be identified. He then went to the bank with me, performed the ceremony, and the money was at once paid, greatly to my astonishment. In thirty days I had fully equipped a shop of my own—an investment which left me very little money."

His First Electric Lamp.

From this point Mr. Edison's course was one of almost unbroken success, won by hard work and intense application. His first factory was at Newark, where he employed some 300 men. A few years later he established a still larger concern at Menlo Park, about twenty-four miles from New York, where he spent over £20,000 on new experimenting apparatus alone, building also a large factory, as well as a private mansion, and it is at Menlo Park that he still has his headquarters. In his earlier years at Newark and Menlo Park he devoted much time and study to the perfecting of electrical apparatus, and especially to the introduction of lamps for electric lighting. His achievements in this direction are too well known to need particularisation at this stage, but the story of the discovery of his first electric lamp, which was the most practical realisation in the way of electric lighting up to that time, should not be passed by. After a very long and anxious period of study, Edison, in October 1879, came to the conclusion that a carbon filament was utilisable, and so convinced was he of this that for four days and nights he refused to leave his laboratory, continuing experiment after experiment with his associate, Mr. Charles Batchelor. On the second night he seemed to be so near the consummation of his task that he said to Mr. Batchelor, "We will make a lamp before we sleep, or die in the attempt," and on the second day after making this vow a perfect filament was secured, and when at last a lamp was finished and lighted they saw that they had accomplished a magnificent success. This was the Edison incandescent lamp which was afterwards put on the market and wrought such a revolution in lighting.

For some years after this invention was evolved Mr. Edison devoted himself with rare diligence to the improvement and popularising of the lamp, and many companies were formed for electric lighting purposes. The invention brought much fame to Mr. Edison, and a considerable accession of fortune, but he had his detractors, who sought to prove that his discovery was no discovery at all, the principle of the electric light having been demonstrated long before, but in spite of all adverse criticism, it is generally held that his claim to being the first to perfect a system of practical electric lighting has been adequately sustained.

THE PHONOGRAPH.

One of the greatest surprises of Mr. Edison's extraordinary career was the invention of the phonograph, which may be classed with the many remarkable inventions which have been more or less brought about by accident. "I was singing to the mouthpiece of a telephone," says Mr. Edison, "when the vibration of the voice sent the fine steel point into my finger. That set me thinking. If I could record the actions of the point and send the point over the same surface afterwards I saw no reason why the thing would not talk. I tried the experiment first on a slip of telegraph paper, and found that the point made an alphabet. I shouted the words, 'Halloo, Halloo!' into the mouthpiece, ran the paper back over the steel point, and heard a faint 'Halloo, Halloo!' in return. I there and then determined to make a machine which would work accurately, and gave my assistants instructions, informing them of my discovery. They laughed at me. But I made them set to. That's the whole story. The phonograph, or sound-recorder, is the result of the pricking of a needle."

Much remained to be done, however, before the phonograph became the instrument that it is to-day, and its final stage has probably not been reached even yet. It was a long time before the labial and dental sounds could be clearly distinguished, and the sibilants were more refractory still. It is said that Edison, in order to overcome the latter difficulty, spent from fifteen to twenty hours daily for six or seven months on a stretch dinning the word "spezia" into the obstinate cylinder; but in the end the instrument was brought into subjection, and the difficult word was given back to him, not in a confused lisp, but with perfect enunciation. The phonograph was first exhibited in England at the Royal Institution and then at the Crystal Palace in 1888, and at the Paris Exposition of 1889 was one of the leading sensations.

Edison has given the world many surprises since then. His work in connection with the development of electricity never stops; it is always going forward, and although many other inventors, both in America and in England, have produced, and are producing, improvements of the first importance in this direction, the field is so vast that Edison is still able to keep a position that is all his own in the record of electrical science, as well as to form alliances with other electricians for commercial purposes.

LATER INVENTIONS.

Amongst the later experiments which the "wizard" of Menlo Park has given his mind to, the investigations he has been making into the application of electricity to locomotion are deserving of special mention. The problem that Edison has set himself to solve is that of obtaining electrical force direct from the oxygen and carbon without the heating process which necessitates the employment of the steam engine as a producer. The realisation of this dream would, indeed, be an important element in the quickening of electrical application to our railways, and on an electric railway near his factory he is making constant trials with a view to accomplishing this end. The sanguine inventor talks with the greatest coolness of our one day being able to travel at the rate of 150 miles an hour by the aid of electricity.

Mr. Edison has in recent years been the means of greatly enlarging the scope of photography, by enlisting the aid of electricity in its development, and in the various forms of "moving pictures" which have lately been exhibited under different names, his master touch has been largely to be traced. His patents for inventions connected with this class of photography are numerous. And he also aims at combining the photographic apparatus with the phonograph in an instrument called the kinetophonograph, which, if perfected, will give back sounds as well as scenes and figures. He maintains that one day it will be quite possible to reproduce not only the sound of the voices of great singers, actors, and orators, but their every look and gesture, thus enabling a famous musical or dramatic performance to become a permanent realisation, capable of reproduction at any time or in any place.

In all that pertains to scientific discovery and invention, Mr. Edison takes an active and participating interest. He is the co-worker with, not the rival of, other inventors. Whatever new discovery of importance is made in science, mechanism, or manufactures, he immediately places himself and his "factory" in touch with, and is as eager to help in the development of other men's ideas as in those of his own creation. For instance, he has done much to strengthen and render more practicable the important discovery of the Röntgen or X Rays, and the experiments he is now pursuing in this direction are most promiseful. We are told that "the principle on which he is working is the discovery of chemical crystals which will give off light by means of the X Rays."

Versatile and splendid as have been Mr. Edison's achievements, there remains the possibility of a crowning one. The great series of costly experiments which he has been carrying on for the conversion of low-grade ore into material fit for the production of fine steel are being watched with keen interest by experts on both sides of the Atlantic.

PERSONAL TRAITS.

Mr. Edison, as will have been gathered, is a man of a strong personality—a thorough American, witty, good-hearted, and, above all, hard working. He devotes himself to his laboratory and factory twelve hours a day—from seven to seven. He lives plainly, abstaining almost entirely from alcoholic drinks, smokes a great deal, and the moment his head is on the pillow he goes to sleep, and sleeps so soundly that, to use his own words, it would take a twelve-inch cannon to wake him up at any other time than that at which he has decided to wake. He is a shrewd judge of character, always selects his own assistants, and can himself work for sixty hours at a stretch if need be. Society might possibly have some charm for so genial a man as Mr. Edison, but, unfortunately, he suffers from deafness, and on that account is not able to join in the flow of conversation which otherwise he would be so well fitted to adorn. Amongst the many honours which have been showered upon the inventor he is most proud of the Albert Gold Medal awarded him by our own Society of Arts, and the three degrees of the Legion of Honour which France has accorded him. In any future history of invention the name of Thomas Alva Edison must necessarily fill a very conspicuous place. His inventions have not only been of marked value to the development of science and industry, but they have added materially to "the gaiety of the nations."

JAMES J. HILL

AN AMERICAN RAILWAY MAGNATE

AMONGST the foremost of the Aladdins of American railway enterprise—the men who have been supplying new railways for old, and building prosperous lines upon the ruins of former undertakings—stands the name of James J. Hill, the president of the Great Northern Railroad of America, to whom it has been given to conquer mountains, continents, and seas, and literally to make "the desert blossom as the rose." How he came to accomplish the great achievements which will make his name memorable in American annals is one of the most marvellous stories of modern times.

Mr. Hill is a Canadian by birth, and was born in Wellington County, Ontario, in 1838. He traces descent on his father's side from a sturdy Irish stock, and on his mother's from Scottish ancestry of the Dunbar line.

His boyhood days were spent amidst agricultural pursuits, to which he bent himself with commendable diligence, although, perhaps, with no great liking. His parents were in sufficiently comfortable circumstances to enable them to give him a better education than has fallen to the lot of most of America's self-made men. Indeed young Hill not only received a thorough grounding in the various branches of knowledge which go to the making of a well-informed man, but also showed considerable aptitude for learning, and for a boy was more than usually inclined to be studious. In fact in those days, living apart from the great world of action, he was much of a dreamer, and when he could spare the time would often stray into the woods, book in hand, and let his thoughts loose upon the world of imagination, making friends with the heroes of romantic fiction, accompanying the poets in their flights of fancy through bright but impractical realms, and often enough laying his book aside and dreaming his own dreams of a vivid, varied, and adventurous future which he hoped to realise. It was hardly, however, in the direction of arduous work that his thoughts turned at that time, for his aspirations were towards fields of activity in which knowledge and learning play the chief parts, and his parents had quite made up their minds that for such a studious and intelligent youth the proper sphere would be the ministry or medicine, and to this end his later education was steadily shaped.

CASTLE-BUILDING.

All this castle-building, however, on the part of the young man and his parents suffered an irreparable shock by the death of his father, an event which occurred when James was only fifteen years of age; and, to make matters worse, the widow and her little family were left almost without means, the father having sustained severe reverses in the few years immediately preceding his decease. Thus the boy was thrown upon his own resources and compelled to relinquish the idea of professional life.

It was in this first crisis of his career that it occurred to him that the best thing he could do would be to try to turn some of his boyish dreaming into practical shape. In the fascinating books of Fenimore Cooper he had read of the vast western solitudes over which the Indians roamed in careless freedom, and he had dreamt of a coming time when these regions would be opened up by the transforming touch of industrial development. Westward therefore he fixed his gaze. He now knew that he would have to fight and struggle for a position by himself, and he felt that the West would give him the best opportunities. But first of all he had to get the money together to enable him to get there, so he obtained employment in a local country store, which enabled him, in addition to keeping his mother, to save a little money, and after three years of this servitude, he left the old home and the country of his birth and migrated to St. Paul, Minnesota, then a mere village on the hem of civilisation and regarded as almost beyond the limits of desirable settlement. It proved, however, to be the gateway to an empire to James J. Hill, though at the time of his entering it he little imagined what marvellous things fate had stored up for him.

A TIME OF DRUDGERY.

For a time life was hard for the young Canadian. The conditions of existence were rough and rugged in those days in and around St. Paul, and one had to put up with them or leave them. But the more James J. Hill saw of the place the greater were the possibilities he saw in it, so he resolved to "labour and to wait," strong in the confidence that when the great expanses of prairie land which stretched out for thousands of miles beyond St. Paul, to the very margin of the golden Pacific, came to be opened up, there would be opportunities enough and to spare for those who were there ready and able to avail themselves of them. So he bent his will to the work before him, and, throwing pride to the winds, began his career in St. Paul with no higher occupation than that of "roustabout" on the wharf, where he earned two dollars a day carrying wood and freight on his back from the wharf to the decks of the Mississippi steamboats. The man who could so far "stoop to conquer," was pretty sure to be heard of in better company later on.

After a time he was fortunate enough to secure a position as shipping clerk in the office of the Dubuque and St. Paul Packet Company, and there he first came in contact with some of the actual problems of transportation. On the one hand, there was the Mississippi River, with its old-fashioned boats plying to and fro with passengers and freight; on the other hand, there were the beginnings of a railway system which in a half-hearted way was stretching dimly out in the direction of the great wheatfields of the West, but seemed afraid of too rapid an extension. The master spirit was wanted to make the way clear out of this chaos of bewilderment, and in due time this potent magician worked his way to the front, and boldly grappled with and overcame all difficulties. That master spirit was James J. Hill, the shipping clerk.

VOLUNTEERS FOR THE WAR.

Once, and once only, was he in danger of stepping aside from the great task he saw before him. He had as yet hardly passed from the period of the unformed ambition of youth to the time when the sterner purpose of manhood asserts itself, when his heart was stirred by the call to arms which resounded through all the Northern territory on the outbreak of the Civil War. He was now a citizen of the great Republic, and as ready to fight her battles as if he had been born within her borders. One morning, therefore, instead of going to his customary work, he walked up to the recruiting tent, and presented himself to the officer on duty as a volunteer for the front; but, to his disappointment and chagrin, this man, who was destined to be so great a fighter on other fields, this hero of so many later battles, was refused admission into the military service because of some defect in his eyesight.

"You can't see far enough into things, my man," said the doctor.

"Perhaps I can see farther than you think," was the quiet reply.

"Maybe," returned the doctor meaningly, "but you'd better look in another direction."

Thus Mr. Hill was saved for a safer and more distinguished career.

He was becoming restless, however, and wanted more active employment than the shipping office afforded him, so, having saved a little money, he set up in business on his own account, becoming agent for the North-Western Packing Company and the St. Paul and Pacific Railroad, and also engaging in the sale of coal and wood. He was the first to bring coal to the city of his adoption, and the first to open up communication between St. Paul and Winnipeg, then known as Fort Gary.

But amidst all his attainings of a material kind, young Hill never allowed the poetic and romantic side of his nature to be effaced. He was still the dreamer of dreams, only they assumed a more practical shape than formerly, and he came to make money of them. Indeed, it was only a man possessed of a strong imaginative faculty who could have seen the possibilities that seemed clear enough to him in the then wild and comparatively unpeopled regions of the Far West. But he always dreamed to some purpose, and he succeeded much beyond the promise of his dreams.

A Little Love-Story.

In the days when he was carrying his heavy loads between the wharf and the steamers he had frequently had occasion to make calls at a little hotel that overlooked the river—then the only hotel in the place—and at this house had made the acquaintance of Mary Mahegan, a young woman employed there, whose beauty and winsome ways won the heart of young Hill. Confident in his ability to make his way in the world, he had proposed marriage to her, and was accepted, and from that time forward two of them were dreaming dreams of the same pattern instead of one. He told Mary that he would make her his wife when he had made himself a position, and, as it turned out, it was no "lang coortin'" that they had to endure, for the young man found a fresh incentive to energy in his love, and was soon able to provide suitably for a married existence. The first thing he did in this direction was to send Mary Mahegan for two years to an Eastern boarding-school to acquire an educational training that should fit her for any position, however exalted, which he might attain, and when she returned to St. Paul he married her, and like the hero and heroine of the older fictions, "they lived happy ever after." To-day, husband and wife live in a mansion which cost £140,000 to build, from the windows of which Mr. Hill can look down upon the old wharf where he once toiled so hard and hopefully, and the wife can see the roof of the little hotel in which she used to be employed as a servant. Between the past, which the busy wharf and the old hotel recall to the occupants of the palace on the hill, and the present, which their luxurious habitation represents, what a steep and difficult passage has had to be forced! What anxious days and nights have had to be lived through! What obstacles have had to be brushed aside! What daring projects undertaken and piloted to success!

In 1872 Mr. Hill went into partnership with Norman W. Kittson, of the Hudson Bay Company, and together they operated steamboats between Moorhead and Winnipeg. In this new enterprise Mr. Hill became more directly interested than ever in questions of transportation, and not long afterwards he was prevailed upon to attempt the re-organisation of the St. Paul and Pacific Railway, which was in a very bad plight—bankrupt, in fact. The line was not quite 400 miles in length, including 80 miles of rough road between St. Paul and St. Cloud, a stretch of 216 miles from St. Paul to Breckenridge, and about 100 miles of track which did not connect with either of those lines.

A BANKRUPT RAILWAY.

The St. Paul and Pacific Railway was looked upon as hopeless. Capitalists would have nothing to do with it, the financiers of Wall Street sneered at it, and those who had occasion to use it denounced it. It was practically good for nothing—certainly not good to travel upon, and still more certainly not worth investing in. At least such was the popular view. But Mr. Hill was evidently able to discern some gleam of hope beyond all those depressing difficulties. Not even the grim fact that the line was nearly £7,000,000 in debt and utterly discredited served to dismay him.

Mr. Hill had the penetration to see that this struggling bit of a railway might be made the means of piercing a comparatively unknown region, and of opening up a wonderfully fertile empire to settlers. He saw that there was the nucleus of an immensely successful undertaking in this insolvent railroad. He believed in it, and also persuaded others to look through his spectacles, when they believed in it too. Thus, Mr. Donald Smith and Mr. George Stephen came to be associated with him in a scheme for the purchase and re-organisation of the line, and in 1879 the company was reconstituted under the name of the St. Paul, Minneapolis, and Manitoba Railroad, of which Mr. George Stephen (now Lord Mount-Stephen) was the first president, Mr. Hill accepting the position of general manager.

How the wiseacres ridiculed the supposed rashness of those men in wasting their energies and means upon so difficult and hopeless a task! It was pointed out that with the Northern Pacific, constructed at an enormous cost with the assistance of the Federal Government, and the Canadian Pacific, with the resources of the British Empire behind it, all the connection that was required between the Eastern and Western Oceans was already provided, and that as these lines were financial failures it was the height of folly to presume that a third railway, without any Government backing whatever, could possibly succeed. Where, it was asked, was the population to support such a line? Hundreds of miles of uninhabited prairie intervened between one little town and another.

But these alarmists had not the insight that the clever projector had. Mr. Hill was not thinking simply of building a railway to compete with existing lines; his object was to construct an iron road that should be the means of attracting population to an enormous tract of productive country. He had confidence in the result, and he stuck resolutely to his task. In the first place, he had the portions of railway already built greatly improved. After that, he began the great work of extension, in which he never faltered until, inch by inch, rod by rod, and mile by mile, the shining rails had been laid from the waterway of the great lakes through Minnesota, Dakota, and Montana, and out to the shores of the distant North Pacific.

SIX THOUSAND MILES OF TRACK.

The railway system thus created gridirons North Minnesota, connects with Lake Superior at Duluth, provides two tracks through the Red River Valley—one on each side of the river—to the Canada line, traverses the whole of Dakota and through Montana as far as the Great Falls of the Missouri, and then through the cañon of the Missouri and the cañon of the Prickly Pear to Helena, and ultimately on to the Oriental terminal at Seattle, connecting also with Vancouver on the north and Portland on the south. Over 6000 miles of track are represented by this great undertaking.

As a matter of construction it was a tremendous feat, and, long before it was completed, the men who had been the chief detractors of the scheme were won over to a warm approval of it. To say that Mr. Hill superintended the construction of this gigantic railway would be to give but little idea of the work he actually accomplished in the years of its building. He was not only the prime mover and organiser of the undertaking, but he saw to every detail of it being carried out. So thoroughly did he cover the ground, and so complete an acquaintance did he reveal with every requirement, that it seemed to the workers as if there were two or three Mr. Hills running around at their heels and directing them. He was ubiquitous. Here to-day, and gone to-morrow, and back again the day after, appearing and disappearing like a ghost. Sometimes he made long journeys on sledges drawn by dogs, beating through the snow and ice from point to point; sometimes he had to dodge a party of opposing Indians, or impress his strong individuality upon them, and fight his way through them; and sometimes he had to endure thirst and fatigue in the scorching summer heats for long spells. But his enthusiasm kept him up through all.

St. Paul, Minneapolis, and Duluth were fixed upon as the primary basis of operation, and from these three points all supplies were served out. Millions of dollars had to be forthcoming to enable the work to be prosecuted, but neither money, foresight, or vigilance was ever lacking, and it is a remarkable fact that this stupendous work of railway construction was begun and completed without State or Government land grant or subsidy, at a capitalisation in stocks and bonds of about £6000 a mile, and at the rate of about one mile a day for every day of control. While other trans-continental roads, notwithstanding their subsidies and grants, have gone into the hands of receivers, the Great Northern has never once failed to pay interest on its bonds, and has never passed a dividend.

By the winter of 1886–87 the main portions of the line, so far as the actual building was concerned, were nearly completed. All the bridges were built, the tunnels were cleared, and the line was ready for being graded, and on April 2, 1887, the work of track-laying was begun. For some weeks, however, snow and ice delayed operations, but from May 15 a full force was engaged, from which time an average of 3300 teams and about 8000 men were employed on the grading; and 225 teams and about 650 men on the track-laying, surfacing, piling, and timber work. From the mouth of the Milk River to Great Falls—a distance of 200 miles—grading was done at an average rate of seven miles a day, and it is stated that within that period there were moved 9,700,000 cubic yards of earth, 15,000 cubic yards of loose rock, and 17,500 cubic yards of solid rock; while there were hauled ahead of the track and put in the work to such distance as would not obstruct the track-laying (in some instances thirty miles) 9,000,000 feet (broad measure), and 390,000 lineal feet of piling.

TRACK-LAYING EXTRAORDINARY.

The record of track laid is as follows:—April 2 to 30, 30 miles; May, 82 miles; June, 79.8 miles; July, 100.8 miles;

August, 115.4 miles; September, 102.4 miles; up to October 16, to Great Falls, 34.6 miles—a total to Great Falls of 545 miles. The track started from Great Falls on Monday, October 17, and reached Helena on Friday, November 18, making an extended total of 643 miles. The average rate for every working day was 3¼ miles.

Such methods were employed in the construction of this railway as had never been heard of before. So rapid were the operations that it was reported in the Eastern States that the Western people thought no more of throwing down a railroad whenever they wanted to go anywhere than the old-fashioned Easterners did of taking a walk across the country. Shovels, carts, and wheelbarrows were discarded for the big wheel-scrapers which shifted the earth much more rapidly and cleanly.

The Indians couldn't understand this invasion of the "great lone land" of the North-West, and now and then they tried to interfere with the work. Once, while Mr. Hill was visiting one of the remoter outposts, a band of Red men appeared on the scene and threatened trouble. Mr. Hill took in the situation at a glance, called up his little army of workers, and prepared to give battle to the Indians. The men fell quickly into line and acted with such military promptness that their assailants were soon dispersed.

After the completion of the railway all that Mr. Hill had predicted, and more, came to pass. The desert places became peopled; settlers from all parts of the world came flocking to the new country; hamlets, villages, towns, and cities sprang rapidly into thriving existence; and millions of acres of previously uncultivated land were made to yield rich crops.

A New Empire.

What all this means to the world at large is beyond computation. Bread-eaters the world over have been benefited by the enterprise. To-day the State of Minnesota alone produces some 80,000,000 bushels of wheat, or about one thirty-seventh of the total production of the world. The Dakotas produce 97,000,000 bushels, and Oregon 24,000,000 bushels, and the ready distribution of these enormous quantities of grain is largely due to the facilities offered by the Great Northern Railway.

Thousands upon thousands of prosperous homes have been established in this great agricultural territory, and the conditions under which the settlers live are such as insure general prosperity. The farmer farms there according to the most improved methods. Steam and electricity serve his purpose at all times. He ploughs, sows, reaps, and thrashes by machinery, and has telephonic communication between his house and the granaries, and all the time Mr. Hill is thinking for him and of him, and doing his utmost to promote his prosperity. Mr. Hill himself in these days is a farmer and horse and cattle breeder on a very large scale, experimenting with scientific direction and a keen appreciation of the wants of the farmers. On his farm of 5000 acres at Northoaks, near St. Paul, he has collected the best breeds of horses and cattle from all parts of the world. At Crookston, Minnesota, he has a grain farm of 35,000 acres.

His aim is to educate the farmer in every detail of his work, and he places at their service the results of his various experiments. Frequently he is to be found addressing large assemblies at State and country fairs, and other places, advising them on the best agricultural methods. He backs up his advice, moreover, by practical contributions to their needs. Not long ago he scattered along the line of his road for free use of the farmers 500 full-blooded bulls and 3500 well-bred boars, which have had the effect of greatly improving the stock of the North-West. He has also used his influence to induce the farmers to take up diversified farming, instead of depending upon wheat alone, and already they are reaping the advantage of this wise advice.

GIGANTIC STEAMERS.

More than all, Mr. Hill has interested himself with his usual success in finding new markets for the products of the North-West. Time and again he has reduced the freight rates on the Great Northern system, making the cost of transportation of produce lighter and lighter, to the increasing of the profits of the farmer. In the navigation season the road connects with the company's own steamers at Daluth and Superior, and, in addition to the luxurious passenger steamers, they have a fleet of six freight vessels, each carrying an immense quantity of grain, flour, and lumber; and now Mr. Hill is occupied with a still greater project of beyond-railway transportation, for the President of the Great Northern Railway not only looks into the future, "far as human eye can see," but he has the ability to conceive and the boldness to put into execution schemes that to most other men would seem reckless. At Seattle he has embarked upon an enterprise which promises to change the basis of the markets of the world. Having done so much towards conquering the markets of Europe for the subjects of his territory, he now aspires to rule the Asiatic trade, and his company are now having built a fleet of trans-Pacific steamers which will mark a new era in ocean transportation. These ships will as far eclipse in size and carrying power any vessels that have previously been built, as the *Oceanic* eclipses the steamers of twenty years ago. They are to be of a capacity to carry 20,000 tons, or of a measurement of 28,000 tons, and the deck room of each ship will be over five acres in extent. To give an idea of the size of these ocean monsters it will be sufficient to say that each one will be as large as the *Campania* and *Lucania* of the Cunard Line put together. Twenty miles of yard tracks will be required to accommodate the cargo of one of these steamers, now in course of construction at Seattle.

A SUPREME RULER.

It has been said of Mr. Hill that not only has he "made the road, but he *is* the road—its head, its hand, its conscience";

and it is stoutly maintained that he "knows every inch of the country" through which his road runs—in its geography, topography, fauna, flora, minerals, water, air, population, resources, and portable products. And he knows the road itself even better still, and is as supreme in his rule as he is beneficent. His is the responsibility of running the road, and between him and his 8000 employés there has never been but one misunderstanding, and that was in 1892, when a strike was fomented by outsiders, but was speedily settled by Mr. Hill's resourceful intervention, arbitration clearing away all grounds of dispute.

And through all this wear and tear and struggle Mr. Hill has contrived to retain much of the humanity and refinement which characterised his earlier career. He is still an omnivorous reader, and has cultivated a taste for art which has resulted in his getting together one of the finest collections of paintings in the country, his gallery including some of the masterpieces of Corot, Millet, Bouguereau, Jules Breton, Ribot, and other representatives of the modern French school, whose productions he seems to value more than any others. Another of Mr. Hill's private hobbies is the collection of jewels, of which he has many superb and unique specimens, though, strange to say, the members of his family rarely wear anything of the kind.

The railway magnate's philanthropies are too numerous to be specified. One of them takes the form of a theological seminary, which he built at St. Paul at a cost of £100,000. But his hand is ever ready to help forward any object that is intended to benefit his neighbours, by whom he is regarded with pride and personal affection. To few men has it been given to achieve so much in so short a period, and none ever wore his honours more modestly than he. Mr. Hill, indeed, is much more than a mere man of millions; he is a man of head, and heart, and brain, and in building up an immense fortune for himself has at the same time built up the fortunes of a large portion of the country of which he is so notable a citizen.

THE STORY OF "CORDUROY BILL"

(LETSON BALLIET)

In Baker City, Oregon, there is at the present time a young man named Letson Balliet, who, answering to the sobriquet of "Corduroy Bill" among his intimates of the mining camps of the wild and woolly West, has been able within a very few years to work himself from exceedingly humble beginnings to the position of a multi-millionaire. He is now (1901) only twenty-eight years of age, and yet he fills a larger space in the public regard of the people of the mining region lying between the Pacific Coast and the Rocky Mountains than almost any other man. All over that rich mineral field, where new gold and copper camps are continually being opened up, Letson Balliet is looked upon as one of the most brilliant men of the time. He is certainly one of the most daring.

In no other country but America could such a career as his be possible. Whatever good or ill fortune the future may have in store for him, he is at the present time the owner of numerous productive industrial enterprises, carries on extensive gold-mining operations, is an active railway projector, is the proprietor of large smelting-works, and owns a gigantic electric power plant. He has achieved all these things, not by the gradual processes by which the majority of millionaires arrive at their riches, but by leaps and bounds, and, for all his youthfulness, has had a career of adventure which has presented many startling and exciting incidents. This Monte Cristo of the mining El Dorado of Oregon is in every way a strong personality, and embarks with the supremest nonchalance on undertakings that would dismay many older men.

It may be that Letson Balliet will not sustain his present brilliant reputation to the end, for to a man who has not yet reached his thirtieth year stability of position can hardly be said to be assured, especially in a country like America, where the ebbs and flows of fortune are swift, and speculation is daring, and risks are great; yet the probabilities are mainly in his favour; a man so resourceful as he has proved himself to be rarely finds himself left behind in the race for wealth. In any case he belongs to a class of millionaires which is essentially American, and illustrates in a striking degree the possibilities that in these days are always open to a man of parts, nerve, and audacity, in a country where so much still remains undeveloped, and where the conditions of life give the victory to the bold rather than to the strong—to the adventurous rather than to the respecter of traditions and precedent. Such a career as Letson Balliet's, incomplete as it is, will well repay a little study.

"ON THE HUMP AND JUMP."

Letson Balliet is a native of Iowa, and is the son of the Hon. Stephen F. Balliet, one of the State Judges. According to his own account of himself, which he was recently prevailed upon to give to a persistent reporter in a "three minutes' interview," he has been "on the hump and jump" as many years as he can remember. He said: "Early in my career I conceived an idea that in the profession of modern engineering there were no impossibilities; the profession had a peculiar fascination for me and I turned to it naturally. Somehow I always had the idea that a man can come pretty near doing whatever he undertakes to do. If I should be given the job of revising 'Webster's Dictionary,' I would assign for the definition of the word 'impossible' the phrase, 'afraid to try.'"

Mr. Balliet's first business experience was earned in the character of a newsboy. No matter into what condition of life an American boy may be born, he is never too proud to stoop to any method of making money that may present itself, if the condition of the family exchequer renders it necessary that he should be contributing his share to the domestic expenses. Thus Letson Balliet did not feel it any humiliation to take up the work of delivering newspapers during the Christmas holidays, over a long and cold route in the suburbs of Des Moines. His first pay was five shillings a week, but he was allowed a shilling a week extra for every twelve new subscribers he could obtain by his own efforts, as long as they remained subscribers. The route was one on which the newspaper company had never previously been able to keep any one carrier more than a couple of weeks, and no wonder, for it took Balliet from four to five hours every night to cover it, and it entailed walking nearly fifteen miles. But he stuck to the work bravely, and in the course of two or three months was earning £1, 13s. a week. For upwards of three years he continued at this exacting work, and all the time kept up his attendance at school as well. Before he relinquished the newspaper round he was making from £3 to £4 a week by it, and was saving money.

A YOUTH OF "SELF-HELP."

Letson Balliet was now ready for any enterprise that he could turn a ready dollar by. During the State Fair at Des Moines he sold pea-nuts and pop-corn on the fair ground, and one year was the owner of a stand where he sold flags and bunting. After the age of sixteen he worked at the carpentering trade during the summer months for three consecutive years, and was during that time employed on many important buildings. But he never neglected his schooling in the winter, when the country was frost-bound and out-door work was impossible, and at the age of nineteen, after graduating from the high school, he obtained an appointment as book-keeper in a wholesale establishment, where he gained a fresh kind of experience which was afterwards of practical use. Then he began to aspire to something still higher, and succeeded in procuring the post of teacher in a country school. It was while filling this position, which gave him plenty of leisure, that he first had his attention drawn to mining and metallurgy, and began to read up and study those subjects. He read and read, and pondered and pondered, until he worked round to the financial side of mining and was fired with the desire to speculate. His knowledge of mining finance became sufficiently extensive to encourage him to invest £2 a month out of a small salary in mining ventures, and from the money he made by these cautious speculations he was able to enter himself for a college course in the following year. Then, after a short studentship, he came out as a civil and mining engineer, and was fortunate enough to gain the appointment of chief engineer to the Des Moines Union Railway Company. This was a great step up, but it did not content him for long. Looking further afield, he became a candidate for the professorship of Science and Engineering in the Arkansas University, and was elected. All the while he kept up his mining operations, and as most of his investments turned out well he was drawn more and more towards this particular field of activity, and finally gave up his professorship and proceeded out West, bent upon becoming a mining man on his own account.

FROM "TENDERFOOT"—UP THE LADDER.

Then young Letson Balliet crossed the Missouri River to follow the westering sunbeams into the Rockies, the Sierra Nevadas, and the Cascades, determined to carve out a future for himself out of the mountain sides. He was well equipped for the struggle. He had a fine physique, ample mental strength, and a good technical knowledge; still, in the parlance of the West, he was what is called a "tenderfoot," and it took a little time for him to turn himself to the best account. He had ventured thither, however, with the deliberate intention of allying himself as closely as possible with mining life; so he speedily adapted himself to his new environment and cut himself loose from his old bookish habits. His first connection with the mines was in the capacity of working miner underground at twelve shillings a day, and from that starting point he pushed his way upward one stage at a time until in the end he got to the position of manager. From managership to proprietorship the ascent was easy, and he made it quickly. Looking back over the ground he has travelled, he now says, in his American way, "I have been unusually fortunate in my investments, and the world has called it a success. I am unmarried, and do not write poetry. I have surrounded myself with loyal assistants, and to them and their management of individual enterprises I attribute the larger portion of my prosperity."

But Mr. Balliet did not climb from the bottom to the top of the mining ladder all at once. He had his lessons to learn like other people, and his trials to undergo. At one time he was employed in prospecting amongst the mountains of Utah and fell in with many strange experiences; but the free, roving life suited him, and every day he was adding to his stock of practical knowledge. Later on he encamped for a while in the shadow of Mount Shasta, making the acquaintance of queer companions, and facing many personal risks. Then he betook himself to the desert of the Great Snake River, where the life was desperate enough for the most reckless. So he shifted about from vocation to vocation, now making headway, now striking a failure, but through it all keeping in his mind as something sacred the one purpose of fitting himself for a mining career.

BAD LUCK—A BRAKEMAN.

During one of his intervals of bad luck he drifted into the position of brakeman on a railway, and for eighteen months was twisting brakes and shouting out the names of stations, enjoying the life, or at all events making the best of it, in spite of the long and irregular hours and the dangers inseparable from the work. At another period he was driving a team on the Pacific Coast, but nothing came wrong to him. He was at home, either serving on the railway train, or driving a four-in-hand of frisky mules or fiery bronchos across the desert, or over high mountain passes. It mattered little to him at those times what it was that he took up, so long as it was honest and taught him something. He was always busy, and never too fastidious. When he was prospecting out amongst the hidden recesses of the Rocky Mountains, he never cared whether he rode on horseback or trudged on foot. His versatility is remarkable. There was a time when he was one of the faculty of the Methodist Episcopal at Arcadelphi, Arkansas, where he occupied the chair of National Science; and he has also shown some gifts of the pen, having written largely upon such diverse subjects as: "Public and Private Water Supplies," "Biology for Public Schools," "The Business of Mining for the Precious Metals," &c.

"CORDUROY BILL'S" PERSONAL COURAGE.

It goes without saying that Mr. Balliet is a man of great personal courage, quick to see and quick to decide, and capable of tackling any enterprise that he can see money in. In him the spirit of modern Americanism is well embodied. He is indefatigable, and acts up to the injunction of the old axiom, that "what is worth doing at all is worth doing well"—to which he would doubtless add, "and quickly." As an instance of his courage, an incident that happened in his prospecting time may be referred to.

This was in 1896, shortly after he had arrived in a little mining camp in the wilds of Idaho, with no asset of consequence on him beyond some mining scrip. The camp was then a hamlet of some sixty souls, and the hotel where he secured quarters was a decidedly primitive affair. He had not been long in the hotel, however, when he made the acquaintance of the owner of a mine about twenty-seven miles away, in a lonely part of the hills, and after a brief conversation, in the course of which confidences were freely exchanged, the mine-owner offered him the post of assayer, at a salary of £25 a month, which Mr. Balliet accepted. The next day they drove out to the mine, and the new assayer got to work, and so well pleased was his employer with the business-like way in which the young man tackled his duties that within two days his salary was doubled. While Mr. Balliet was engaged at this mine he came in contact with an old prospector, who was on the look-out for supplies for a new prospecting trip that he was desirous of undertaking through a tract of country that was regarded as promising. Mr. Balliet believed in the man and provided him with money, afterwards seeing him off on the trail and away on his golden quest. Some weeks later the prospector turned up at the mine again with a rueful countenance, and informed Mr. Balliet that he had succeeded in locating a rich pocket of ore, but that five other prospectors had ousted him from possession, and were then vigorously working the claim. On hearing this news young Balliet immediately mounted his horse and rode away to the spot. A rude cabin had been erected there, but the door was barred. Mr. Balliet soon discovered, however, that there were people inside, so he dismounted, and, with revolver in each hand, coolly marched up to the door, gave it a ferocious kick, and demanded admittance. "What do you want?" inquired a voice from within. "That's a pretty question to ask the man that owns this mine," was Mr. Balliet's reply. But five Idaho "claim-jumpers," as this class of robbers is styled, were not inclined to be frightened by the appearance of one man, more especially if that man be only a youngster of twenty-three, as was the case with their interrogator. So they unhesitatingly opened the door expecting nothing more serious than verbal expostulations, which they were prepared to answer with jeers, but they soon found out that Mr. Balliet was not there for conversation, preliminary or otherwise. The moment he entered the cabin he proceeded to business with his revolvers, holding one level with their heads, and the other level with their hearts. "Look out!" he cried, "I am going to throw lead," and forthwith he blazed away with both revolvers, though as a matter of humanity he at that stage avoided aiming at the targets he had first pointed his pistols at. There was a swift vanishing of "claim-jumpers." Some leaped through the window, others scampered out by way of the door, the five of them flying across the hills for their lives, leaving behind their saddles and blankets. They never returned, and Mr. Balliet took effective measures to protect the property, selling it not long afterwards for £12,000.

AWAY TO THE GOLDEN LAND.

This sum was a nest-egg to keep for future operations, and, taking leave of his Idaho employer, he wandered away in the direction of the golden land, "where rolls the Oregon," and without fuss or delay began those operations in mines which quickly led him on to fortune. His methods were all his own, one of his pet plans being to get hold of mines that were regarded as played out, but were still capable of being worked at a good profit by such an efficient system as he could bring to bear upon them. Such properties were to be had very cheap, and he succeeded in putting many of them on an excellent paying basis. Amongst the numerous resuscitations of this kind that he was responsible for it will be sufficient to mention the Grand Central Mine of Sutter Creek, California; the Cowanus of Blood Gulch, and the Gold King, in Idaho. To begin with, Mr. Balliet would carefully investigate the character of the ore of the abandoned mines, and on the results would decide whether there was anything to be done with them or not. In this way he has been the means of stimulating to new life many neglected mining camps or districts which, until he took them up, had been treated as not worth working. One of the projects by which he will be long remembered in California was his planning of the tunnel known as the Giant Bore, stretching from the American River cañon to the heart of the Sierra Nevada mountains.

AN OUTSPOKEN REPORT.

When going about his work in the mountains, his head surmounted by a broad sombrero, and dressed in a full suit of corduroys, he might be easily mistaken for a vaquero. As a delver of the base ore or the precious metals he is an enthusiast, and is for ever making new acquisitions in the neighbourhood of his principal ownings at Baker City, Oregon. His general business policy as a mine manager is to deal frankly with stockholders, and not to keep anything back from them. His reports may not be the best specimen of literary English as to style, but when he is concerned with stating facts he does not trouble much about the form of his phrases. So long as they are to the point he is content, and so are his associates. In a report of his, referring to the White Swan Mine Company of California, there occurs the following :—"We are not running the old White Swan Mine. We are not doing a lick of work there, and we are not going to until the old company comes to terms, or the day after their redemption passes. We do not propose to pay them for something we already own, and we would just as soon make ten or fifteen thousand dollars by having them redeem it as to dig it out of the ground. Let them act ugly all they want to. It takes money to get the mine back from us. Money talks, and this is the only talk we will listen to. Let them redeem it with money." This is not elegant, it must be admitted, but it is characteristic, and probably better "understanded of the people" of Oregon and mining people generally than if it were couched in the most classical language. It is plain, straightforward, and emphatic, which is more than can be said of the phraseology of the majority of mining reports.

WHAT THE YOUNG MAN CONTROLS.

Letson Balliet is said to practically control twenty-one copper and gold mines in the Burkemont district of Oregon, and is interested in many industrial enterprises in that locality, including refrigerating and brickmaking plants and saw-mills. In all these acquisitions he has shown unusual foresight and ability in taking advantage of—indeed, almost forcing—opportunities. From his industrial and commercial undertakings he derives a large and steady income, one that is entirely independent of his mines, enabling him to hold on to the latter no matter what exigencies may arise. As a mining operator, the bigger the enterprise the better he likes it, and he is not satisfied with only getting the ore out of the ground; he builds saw-mills for the cutting of the lumber required on his own properties, and has machine shops for making and repairing his own machinery. When a railway company declines to give him what he considers a reasonable freight rate, he informs the officials that, if they continue obdurate, he will lay his own rails, buy his own cars, and haul his own fuel himself, and he carries his threat out if they don't give way.

Besides his twenty-one mines in Colorado, Utah, Oregon, Idaho, and California, Mr. Balliet has one hundred and thirty-two other mines in Oregon alone, which he is reserving for future operation. He is, indeed, a king among mining men, young as he is, and brings to bear upon the work an enthusiasm which will either go very far or over-reach itself. "Mining," he says, "is the prettiest and nicest business in the world when you have a paying mine. You make money without taking it from any one else, and you are increasing the permanent circulation of the world. Civilisation owes much to mining for the precious metals. The desire for the possession of metallic wealth has been an incentive to progress ever since Jason sailed out with the Argonauts in search of the Golden Fleece. The result has been culture and enlightenment. History shows that when nations were engaged in active mining or in acquiring gold and silver, they were most progressive and prosperous. Such was the case in the days of Solomon and the Pharaohs. Mining on a legitimate and *bona fide* basis can only be of benefit to the human races."

This is the proper view to take of mining, no doubt, and if all Mr. Balliet's present fortune, and all that he may make hereafter, can be shown to be acquired in this spirit he will occupy a very unique position—far different from that of the men of Wall Street, who only too often make their money at the expense of others. The men who manipulate great properties to destroy values and get possession of that which has been built by other men's money are very different types of financiers from this young man of the West, whose genius is creative, and whose wealth represents a translation of natural resources into the embellishments and conveniences of civilisation.

THE PLUCKY AND LUCKY MULTI-MILLIONAIRE.

That Letson Balliet at the age of twenty-eight is a multi-millionaire, that he has made his wealth in a very short time by plucky and lucky mining and industrial operations, and that Oregon and the Far West generally think him a great man are matters of common knowledge. The question now is, What will he do with the rest of his career? Will he continue to strengthen his hold upon the mining lands of the West and pile up riches at his present rate, or will he miss his way, or plunge, or take more upon his shoulders than he can bear? This remains to be seen. To-day the indications are that he will flourish more and more, for, with all his intrepidity and daring, he is blessed with a good share of natural shrewdness and caution. In fact, without these qualities he could not have climbed to the position he now holds.

Naturally, the Oregonians are proud of Mr. Balliet and his achievements, and you hear much about him as you travel through the Western land. His fame has spread to the East, moreover, and the men of Wall Street are beginning to watch his career. In a reference recently made to him in the *New*

York Sun, a paper which does not as a rule lend itself to the flattering of rich men, there occurs the following passage:—"He has attained fortune and prominence in a world and time when it requires almost superhuman ability or phenomenal luck for any man to raise and keep himself above the high average level of mankind, and at an age when most men of historic careers in industrial and financial spheres were making and saving their first thousand dollars. With such a start in life, and with such abilities and so many years of activity before him, what may not Letson Balliet achieve in the half-century to come, if he lives the threescore and ten years allotted to the average vigorous man? He is a figure which may loom as large upon the Western horizon as one of the mountains he has tunnelled for its golden hoard, and his achievements up to the present day give promise that he will be known in the future as one of the great men of this era."

As a business man, Letson Balliet belongs to the same order as Mr. Andrew Carnegie. It is likely that Mr. Balliet could not have risen on the same lines as Mr. Carnegie has risen on; and it is much more than likely that he will never make the fortune that Mr. Carnegie has done; still, in spirit, action, and alertness, young Letson has been much the same kind of man that young Carnegie was. Their spheres have been different, but they fought against obstacles with the same brave resourcefulness.

"Corduroy Bill," as we have seen, is a man of great versatility. His exceptional training would seem to have developed every faculty of his mind and body. He must be on the move—working hard at some scheme or other, and sparing himself in nothing. He is always a man among men, and is as dependable in matters of recreation as in matters of business. He plays a good game of billiards, is fond of shooting wild ducks or elk, and is learned in every game of hazard in vogue in the West, but, although in recent years his time has been largely spent in communities where gambling is much indulged in, he can never be tempted into risking a dollar on a game of chance

W. S. STRATTON

THE COLORADO GOLD KING

> "Much have I travelled in the realms of gold,
> And many goodly States and Kingdoms seen,"

WROTE John Keats, with his mind on something vastly different from a modern goldfield. But the real "realms of gold" in these days are wonderlands of far greater potency than any of the fancied realms of the poet. In Keats's time, indeed—and that is not going very far back—the greatest goldfields of the world were undiscovered. The glorious treasures hidden away in the mountain regions of California, the marvellous deposits of the yellow metal buried beneath the rolling grasses of Australia, and the rich veins of gold underlying the rugged veldts and kopjes of South Africa had not been revealed to arouse the cupidity of mankind. But when at last their secret hoards were discovered, the solitudes were changed to scenes of bustling activity, and they became peopled with struggling masses of eager gold-hunters from all the ends of the earth. Peace could be theirs no more until the ground had been forced to give up its wealth. With every fresh discovery the search for new gold regions has become more vigorous. The more recent of these discoveries have been made on the continent of North America. At one time we have news of valuable discoveries in the Klondike region, at another time glowing accounts reach us of similar events at Cape Nome, and so on. Some of these new camps represent but the rush of a season or two; others go on from year to year yielding richly all the time, like the Cripple Creek district of Colorado, which may now be considered amongst the most productive of the gold-mining localities of Western America.

CRIPPLE CREEK.

Cripple Creek has made many millionaires within the last ten years. At Colorado Springs, which is the nearest town of importance to Cripple Creek, there is an avenue of mansions where a score or so of mining millionaires are living the lives of princes. Yet ten years ago Cripple Creek was but a wild stretch of open country, without a single permanent habitation to break the loneliness of the prospect. It rested in rugged repose in the folds of the foot-hills around Pike's Peak, remote from the struggle of cities and hardly thought of, except by a small few, in connection with gold possibilities. To-day this mountain region is the centre of a bustling, active, energetic life. A city of many thousands of inhabitants has been created there, though twice burned down and twice built up again, each time rising mightier than ever out of its ashes; and railways connecting it with the great trunk systems of America run into it. Good roads now intersect the district; shaft-hills stand out prominently everywhere, dump-mounds lie scattered about, and Pullman cars pass over the old broncho trails. Wide streets, with fine public buildings and hotels and suburban avenues bordered with four-storey residences, make a busy scene, where no very long time ago the cattle browsed and the few herdsmen of the mountain ranches were the only human beings that the flocks of eagles, flying high above the rocky passes, ever looked down upon.

Cripple Creek rose into fame at a flash as soon as it was reported that a great gold discovery had been made there, and, to begin with, it was essentially what is called a poor man's camp. In fact, most of the men who were connected with the earlier Cripple Creek mines were men in positive poverty; but as the ore was easily handled, and there was no water to contend with, they were able to push their enterprises forward without the aid of the outside capitalist, and in this way reap the full advantage of their claims. They had not to buy expensive machinery before they could get at the gold.

The luckiest of the Cripple Creek pioneers was Winfield Scott Stratton. Ten years ago he was a poor carpenter working for a small weekly wage; to-day, thanks to his Cripple Creek holdings, he is one of the world's richest men.

A HUMBLE BEGINNING.

W. S. Stratton was born in Jeffersonville, Indiana, on the 22nd July 1848, being the only son among the family of nine children of Myron and Mary Halstead Stratton. The father was a boatbuilder, but there were so many mouths to feed that it was little that could be done to help the boy forward in the world. W. S. Stratton, therefore, had to content himself with an ordinary country school education, and when that was finished become apprenticed to a carpenter. He might possibly have had dreams of ultimately becoming associated with his father in boatbuilding, but no more. There is no record of his having been a particularly ambitious boy. He acquired some skill as a draughtsman and could handle his tools dexterously enough; still there was no great call for his services when he was out of his time. As carpentering did not serve, he was induced to accept a position as clerk in a store at Eddyville, Iowa. But he soon grew restless and rebelled against the pen and ledger. Six months sufficed to sicken him. He did not go back home, however, but ventured farther afield, settling for a time in Sioux City and resuming his old trade of carpenter. But either Sioux City was suffering from a plethora of carpenters, or young Stratton was difficult to please; anyhow, he soon pushed forward westward, and tried Omaha, in Nebraska, for a while. Still, success did not come his way, and he moved on to Colorado Springs, Colorado, where he settled in 1872. He drifted thither without any special aim—certainly with no more idea of ever taking up gold-mining than he had of establishing a carpenter's shop on the summit of Pike's Peak, under the shadow of which Colorado Springs cosily nestles.

In those days Colorado did not count for much as a gold-producing State. Silver was its great mineral product, and then, and for many years afterwards, silver-mining was carried on with great activity and success within its borders. The days of the eclipse of silver were still undreamed of. Mr. Stratton betook himself to carpentering, and troubled himself but little with thoughts of either silver or gold, except such as he might be able to earn by toiling at his trade. But to live in Colorado Springs, at the foot of the Rocky Mountains, and see the mighty range of snow-clad peaks stretching as far as the eye can discern from north to south, it gradually becomes natural to a man to speculate upon the possible treasures of precious metals that the overlapping hills hide within their deep bosoms. The longing to penetrate the mysteries of the towering mountains grows upon him, and he cannot throw it off, but must bear it about with him like a Frankenstein until success or failure makes glittering realities or shattered dreams of his aspirations.

THE CARPENTER HAS DREAMS.

Mr. Stratton was diligent enough for a time with his carpentering, for there was always plenty of building going on in the neighbourhood of Colorado Springs, and the structures that were put up were invariably of wood. Long before Mr. Stratton's appearance in that picturesque region it had gained some renown as a health resort, and people suffering from lung troubles came thither from all parts of the world in search of new life. Great hotels were erected, many private lodging-houses were built, and the little city prospered well on its reputation as a sanitarium. For one of a poetic temperament Colorado Springs was a sort of earthly paradise. In the valley that intervened between the city and the mountains there was the famous Garden of the Gods, with its fantastic masses of red rock studded about, worn into cliffs, towers, and caverns by time and weather through countless ages, and calling up visions of many unearthly things to the mind in tune with such monuments of the past. It was not in the

Garden of the Gods, however, that Mr. Stratton spent much of his spare time. When he did begin to dream it was of prosier matters than grotesque monoliths of red sandstone. The desolation of the solitary mountain sides, away from the track of the tourist, was more to his mind.

The young carpenter had contrived to save a matter of £60 out of his earnings with the plane and mallet, and felt "passing rich." Then the idea occurred to him that he ought to invest his savings in some enterprise or other, and he began to cast about for some likely opening. And the itch for mineral wealth seized upon him. Thenceforward his thoughts were turned earnestly towards the mountains, and he made up his mind that his £60 should be used in making holes in the sides of the hills, in the hope that he might chance upon one of Nature's hidden hoards. But he was not one to rush blindly into anything. His £60 was very precious to him. It was the largest sum he had ever possessed, and he was anxious above all not to lose it in a profitless venture. Every Sunday he took long walks across the mountain sides, exploring for minerals as well as he could, but he was not lucky enough to meet with anything that seemed good enough to put his £60 into. Week after week and month after month he continued his vain quest, and was on the point of relinquishing the search in despair when some friends drew his attention to a mine they were working on in what was known as the Cunningham Gulch, and he was persuaded to not only put his savings into the venture, but to forsake his carpenter's bench for it. From that time onward he was a miner. His bit of capital disappeared in Cunningham Gulch, but not his hope or his energy. They remained to him through all.

A TEN YEARS' STRUGGLE.

For ten long years did the future millionaire struggle on, hacking away at the ground, all the time barely making money enough to live upon. During the winter he would work hard at his old trade in the city, and save what little money he could; then, when the spring brought brighter days, he would pack up, and set out on foot for the mountains, taking with him a couple of mules as beasts of burden. Then all through the summer and far into the autumn—as long as the good weather lasted—he would resume his drudgery at the mine, working his hardest and hoping his utmost. Those must have been weary days for Mr. Stratton. Few men would have held on so long, fighting against all kinds of obstacles, and rarely meeting with even a small return for his labour. Mr. Stratton became known as "the patient man"—the "Job of the Rockies." But neither jibes nor jeers turned him from his purpose. He resolved to "stick on," whether he failed or succeeded. From time to time he received a little encouragement from the operations of others if not from what he was doing himself. Every now and then a promising "strike" was made by some of his neighbours, though it never amounted to sufficient to create a "boom." That there was gold—and of a good grade—in the hills they were scratching amongst Mr. Stratton never doubted; so he tried here, and he tried there, but it was not his luck to tap the earth in the right direction. So firmly did he believe in the mineral resources of the district that he began to study assaying and the art of treating ores with a view to those larger operations which he always looked forward to in spite of his long spell of misfortune.

New Grounds.

The year 1891 found him in the same position. He had now been nineteen years in Colorado, and when in the spring of 1891 he set out as usual with his two mules to renew his search for gold he was a poorer man than when he had first entered the State. This time he directed his course towards Battle Mountain, Cripple Creek, where some promising discoveries had just been made, and there he went into camp. For a few weeks he worked with a good heart, but again his efforts were fruitless; others might come upon paying ore, he could not. Then, more discouraged than he had ever felt before, he turned his face homeward, and made his way back to Colorado Springs. There was nothing for him now but giving the quest up altogether. What other alternative was left? He was in a most pitiable plight. Not only had he staked every penny of his own money upon the chance of his finding gold, but he had borrowed money wherever he could, and staked that also on the wretched holes in the ground where he had been working. He was deeply in debt. Ruin stared him in the face. His creditors refused to be put off any longer, and unless some sudden turn of fortune should rescue him in this time of peril, he would be forced into bankruptcy. There was no rest for him in Colorado Springs under such circumstances as these, so he betook himself once more to the mountains. Better to be out there toiling in solitude, however hopelessly, than stay in the city to be badgered and baited by ravenous creditors. Stratton's ill-luck had almost passed into a proverb by this time. His friends laughed over his many discomfitures, and recommended him to go back to his carpentering, and make the best of what seemed to them to be "a very bad job." But there he was out on Battle Mountain again, and once more he began to hack and hew amongst the rocky mounds. His case was desperate. Unless he had better luck than had fallen to him for the previous nineteen years everything would be at an end, and he would have to turn away from Colorado with the painful consciousness of having wasted a score of the best years of his life in a vain pursuit, and of having found a lower depth of poverty than that which he started from.

REWARDED AT LAST.

It was hot work, for it was now the middle of summer, and the heat was scorching, high as the altitude of Battle Mountain was. But, with an energy almost amounting to ferocity, he dug and dug and dug, and at last, on July 4, 1891, he actually struck that for which he had for so long toiled and schemed, and worked and saved and borrowed. His reward had come.

He had discovered a really wonderful vein of gold. In honour of the day of the discovery he christened his mine the Independence, and it was this valuable property at Cripple Creek that for a considerable period netted its owner £20,000 a month. He also found another rich vein, which resulted in the opening up of the Washington mine.

Then followed the great rush to Cripple Creek. Gold-miners and speculators from all parts of the world thronged thither. Previous to this startling discovery the various mining industries of Colorado had been in a bad way. The silver industry was almost wiped out. Silver could not be worked to pay. But the new "find" gave a sudden change to the story. Cripple Creek afforded the disheartened silver-miners a fresh field for their energies, and within a year from Mr. Stratton's great discovery the place had developed into a permanent and profitable goldfield—one of the first magnitude. Simultaneously, as if by the action of an enchanter's wand, Leadville, the "city in the clouds" of the famous silver bonanzas of earlier years, also grew into prominence as a goldfield, and before long, over all her wide extent of mountain land, Colorado leaped into new life, and gave herself up to the strenuous working of an industry which, from that time to the present, has gone on expanding and developing, making of the old silver State one of the greatest gold-producing centres in the world.

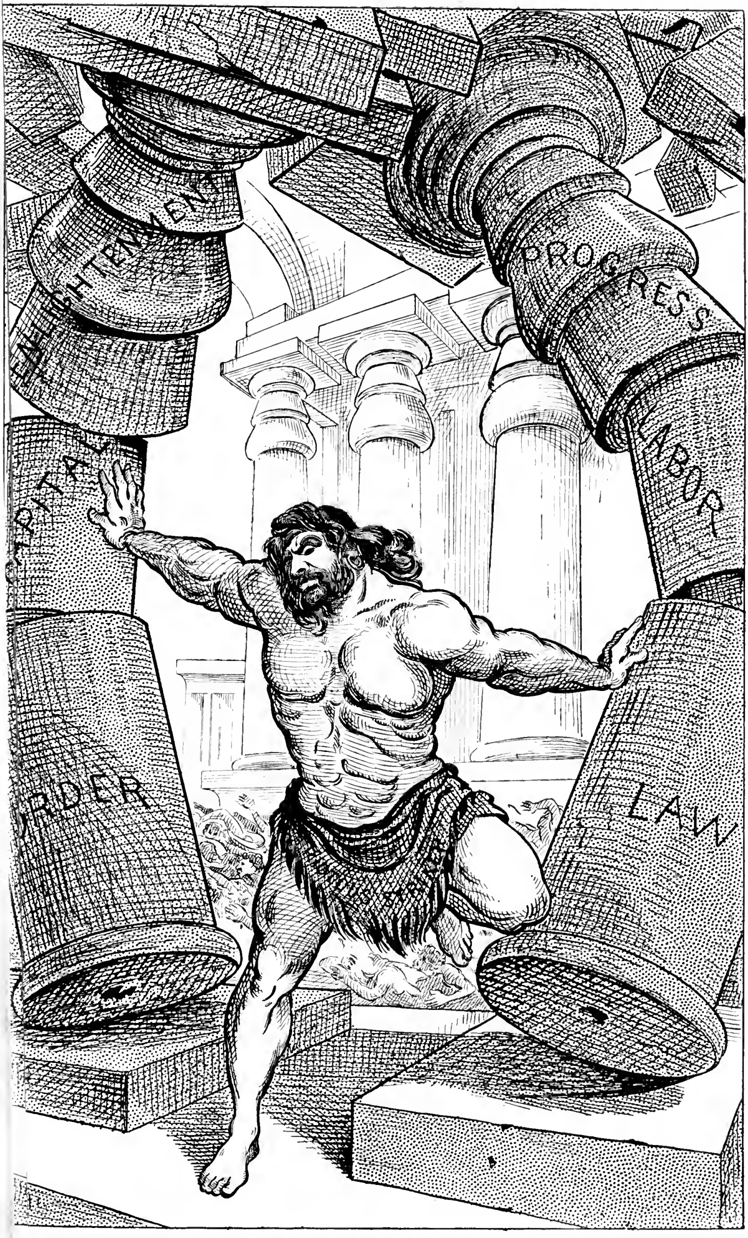
SHORT OF CAPITAL.

At first Mr. Stratton found himself confronted by a very considerable problem, but he was not the man to shirk a difficulty until all possible means of mastering it were exhausted. He had not the money necessary to open up a mine on an adequate scale, and he was too shrewd to let others participate in his good fortune on too easy terms. There were immense boulders on the surface of the two claims of which he had taken possession. Some of them weighed not less than ten tons each. A piece that he broke from one boulder assayed £76 worth of gold to the ton, although other portions yielded as low as 45s. a ton. He was not there for philanthropic purposes, however, so he proceeded cautiously and alone. By his own labour he sunk on his first claim an ordinary 10 ft. hole, and one nearly as large on the second claim. But as he was only able to treat the ore in a crude way he could not get proper results, so for the sake of obtaining a little ready money, he leased his first claim for eighteen months to a capitalist for £16,000, receiving £2000 in cash, with which he began to work his second claim, and also bought neighbouring claims. But there were no mills for treating the ore at Cripple Creek in those days, and no railways to transport it elsewhere. There was not even a passable waggon road. All he could do, therefore, was to sink a shaft, and such ore as he got out of it was dumped on the ground and allowed to remain there until facilities for its handling could be secured.

It was not until 1893 that a stamp-mill was erected at Cripple Creek. After that Mr. Stratton sent his ore there and got fairly good results. All the time he was working steadily on his claim. He made an open cut up the hill from his shaft-house to a distance of 170 ft., cutting the vein to a depth of 5 ft. Out of this he took about £12,000 worth of gold. His success naturally caused him to be beset by speculators, and one of them so far got hold of him as to induce Mr. Stratton to give him an option on his property for £31,000, of which £1000 was to be paid in thirty days, and the balance sixty days later. Before the thirty days had elapsed, however, the great bank panic of 1893 had spread a scare amongst investors, and the man with the option never came to make it good.

A Period of Profit.

In 1894 Mr. Stratton's mine produced him £96,000 with only six months' work, a general strike of miners having kept the Independence idle from February to July of that year. In July 1895 he made a shipment of six cars of ore to


INVESTMENT
PROGRESS
PITAL
LABOR
RDER
LAW

THE MODERN SAMSON

Denver; half a car-load of which consisted of sacked ore, averaging over £200 per ton. Thenceforward to the present time Mr. Stratton's career has been one of continued success. His entire holdings, comprising fourteen claims of an aggregate surface extent of 110 acres, of which only about thirty acres have yet been worked, were taken over by the Stratton's Independence Limited Company last year, by which transaction Mr. Stratton was made the richer by an enormous sum in cash, besides retaining a considerable interest in the enterprise. To make the original discovery was a marvellous stroke of luck; to work it so successfully has been a splendid stroke of good management. It is one of the most interesting mines in the world. Although only thirty acres are at present being mined, the workings honeycomb the ground so thoroughly that they disclose nearly seven miles of underground passages, and go to a depth of 900 feet. What the remaining eighty acres, originally owned by Mr. Stratton, will produce has yet to be revealed.

GREAT IMPROVEMENTS.

Mr. Stratton, however, has fallen upon a good time as well as upon a valuable discovery. Since 1891 the art of gold reduction has been greatly improved, the later processes having been the means of adding millions' worth of gold to the wealth of the world every year—millions' worth that but for those processes would have remained almost worthless. Because of these new methods of handling gold ores of low grades profitably, old mines and dump-hills are being prospected again for the purpose of finding traces of gold which was formerly neglected as being of the non-paying order. Thus, not only in Colorado but in all other gold-yielding regions, mines that have been abandoned as exhausted are now found to contain new and unexpected riches, and while many poor men have been made wealthy by the change of treatment, many wealthy men like Mr. Stratton have been made wealthier by it. Mr. Stratton kept pace with every new development in the art of treating ore. As soon as he was able he established stamp-mills of his own, and put himself in the position of being competent to carry on all the operations connected with the reduction and refining of the gold, as well as the mining of it. He was no longer jeered at as the Job of the Rockies, but was flattered and fêted as if he had been a monarch.

A PERSONAL VISIT.

In the spring of 1896 I myself paid a visit to Cripple Creek, at which period upwards of £200,000 worth of gold was coming out of the ground there every month. I proceeded to the golden city by the night train from Denver, reaching the place early the next morning. The approach was magnificent. Hills towered up on all sides, revealing a rich panorama of green and brown stretches of rock and pine-trees, with gleams of snow glistening in the sunlight here and there, marking the higher peaks. There was a delightful freshness in the air, and the sky was a deep, unclouded blue. Shaft-buildings dotted the hillsides, and busy workers could be seen moving in and out amongst them. When at last Cripple Creek was reached, a scene of great commotion, marked by a certain rude picturesqueness, presented itself. From scores of stacks in the valleys and on the hills the smoke arose in dense clouds, and vehicles of every description and a clamouring throng of people gathered around the station noisily. Carpenters were to be seen at work in all directions putting up wooden buildings of various kinds, for in new American cities they don't trouble themselves much about stone or bricks; those are the venerable signs of antiquity. Every now and then I was a witness of the enlivening incident of the passing of a load of ore being dragged over the miry road in a heavy waggon by a force of six or eight horses, guarded by armed men. Occasionally a halt had to be made until a shot of dynamite was fired in one of the mines. Then there would be a muffled boom, a rattling of stones, and a flying of earth, and a fresh heap of ore would lie ready for the men to shovel up. Trucks of miscellaneous merchandise, waggons loaded with lumber, carts conveying new machinery to the mines, buggies transporting mining men to the scene of their labours, all added to the day's animation.

A NIGHT SCENE.

When darkness fell over the landscape electric lights blazed forth in every part of the town and all over the sides of the hills, from hundreds of shaft-houses lesser lights twinkled, while the sound of many voices and of an uproarious hilarity assailed the ear from drinking saloons and gambling dens. Then a drum would be vigorously beaten, and a blatant cornet would sound, and presently a Salvation Army band would march into view with its train of singers, all banging away to the air of "We are tenting to-night on the old camp ground." Some carpenters, working overnight to finish a new drinking-shop, beat time with their hammers, and in a saloon, in front of which the Salvationists took up their stand, a woman could be heard singing "Paradise Alley" to her own discordant piano accompaniment. Certain other sights and sounds that distinguished Cripple Creek by night at that time need not be dwelt upon. They were meant to catch the gambler and the drunkard, the worthless and the reckless, and, unfortunately, they did their allotted part only too well. Then when a cheery band of mining men, amongst whom was Mr. Stratton himself, approached the hotel a slight cheer was raised in recognition of their greatness. What a change from the time when Mr. Stratton was a lonely dweller in those regions, toiling and hoping on in a mountain solitude year after year, poor, and almost despised! Still, it is not all enchantment in the realm of gold, and there are many stern realities to-day in Cripple Creek that are calculated to awaken a shudder; for wherever greed peoples a solitude the triumvirate of envy, hatred, and malice breed distraction there.

HAVEMEYER AND SPRECKELS

THE SUGAR KINGS OF AMERICA

IN no branch of American industry, probably, have the developments been more rapid in recent years than in that of the sugar trade, which has assumed an enormous magnitude, in comparison with the records of a decade or two ago, and is still growing at a goodly rate. For the best part of a century, sugar-refining has been carried on with more or less success in the United States, but it is only within the last thirty years that it has assumed large proportions. To-day—whether for good or ill, it is not our province to discuss—the bulk of the operations in this industry in America is under the control of two gigantic combinations; the headquarters of one of them being in New York, and of the other in San Francisco. Mr. Henry Osborne Havemeyer is the king of the Eastern forces, and Mr. Claus Spreckels is the monarch of the Western battalions. Under the energetic direction of those two potentates—to whose supreme sway all smaller sugar-men have had to bow—two far-reaching organisations have been built up and brought into line one with the other, absorbing many millions of capital, and making sugar stocks and shares things to conjure with in the money markets of the world.

KINGS OF THE EAST AND WEST.

The American Sugar-Refining Company, which is dominated by Mr. Havemeyer, has a capital of £15,000,000, and represents a daily average sugar-producing capacity of 42,700 barrels, the factories included in the organisation being situated in Brooklyn, Philadelphia, Boston, Jersey City, and New Orleans, that of the original firm of Havemeyer & Elder, in Brooklyn, being the largest of these concerns, with a daily capacity of 9000 barrels. The Western sugar refineries, directed by Mr. Spreckels, are not less important or extensive. Indeed the battle for supremacy was vigorously carried on for years between these two sugar magnates, each of whom invaded the territory of the other; but latterly more peaceful counsels have prevailed, each organisation has retreated within its own proper sphere of action, and it is found that not only is there room for both, but vast possibilities still remain for them to exercise their energies upon without clashing in open conflict. It is acknowledged that a very large area of the United States and its recently acquired colonial possessions is adapted, both in soil and climate, to the successful raising of the sugar beet. Millions of acres that are now given over to less profitable products could be devoted to the cultivation of this plant, as well as to the sugar cane, and considering that out of a total consumption in the United States of 2,000,000 tons of sugar per annum only some 3000 tons are of home production, it will be seen that the margin for future developments is very great, much as has been accomplished. It is not improbable, therefore, that progress will continue to be made in the sugar industry, as in the iron and steel and other trades of America, until raw sugar becomes an article of export, instead of import, and the sugar trust organisations of the present time will become greatly extended, unless their exclusiveness should be broken down by the force of open competition. Trusts cannot go on adding undertaking to undertaking to their already enormous enterprises indefinitely. If they did, the time would not be far distant when the whole of the industries of the United States would practically be in the hands of a very few men.

THE ADOPTION OF BEET.

It was not until the adoption of beet as the leading sugar-producing plant that the United States began to enter seriously into the sugar business. Up to that time such sugar as had been made in the country was from the sugar cane. Little by little, however, the cane was supplanted, and now nearly two-thirds of the world's production is obtained from the beetroot, although it was not until 1887 that the beet passed the cane. But whether the cane be destined to be restored to its original master position or not it is pretty safe to assume that America, having once embarked vigorously in this industry, is not likely to do other than enlarge its power of production, no matter what the plant or commodity may be from which the saccharine substance will have to be extracted. The chief efforts of recent years, however, have been in the direction of improving the beet and the mechanical operations necessary to its handling; while in regard to the sugar cane there has been comparatively nothing done either in the way of bettering its cultivation or its methods of manufacture.

THE STORY OF BEET SUGAR.

The story of beet sugar is not without interest. As far back as 1747 Marggraf, a German student, read a paper before the Berlin Academy of Sciences, in which he announced his discovery of a method of producing sugar from beet. He was not a mere theorist, but was able to explain how the sugar could be manufactured, and exhibited samples for the inspection of the savants. The Academy looked dubiously upon the discoverer and his samples, regarding him as an enthusiast and a visionary; yet Marggraf felt so sure of his ground that he expressed his confident belief that Europe would ultimately find in the beetroot the basis of an immense sugar industry. But no one took the matter up, and Marggraf himself was too poor to put his discovery to any larger test. So for half a century his idea slept in undisturbed repose; but in 1797 Achard, who had been a pupil of Marggraf's, and who shared his master's faith and confidence in the importance of the discovery, brought forward improvements of his own in the methods of producing sugar from beets, and was the means of attracting the attention of Baron de Koppy to them. The baron set apart an estate in Lower Silesia for experiments, devoting a considerable tract of land to the cultivation of beets and erecting a factory for the manufacture of beet sugar, the whole being placed under Achard's control. This was in 1805. Success attended these initial efforts, and in less than fifteen years after taking up the enterprise Baron de Koppy's factory was producing beet sugar equal in quality to that obtained from the sugar cane. King William I. of Prussia interested himself in the new industry and granted valuable concessions in aid of it, but in those days the German States were not in a favourable condition for helping forward industrial developments of any kind. Their commerce had been seriously interfered with by disastrous wars, and France was not in a much better plight, though that country held out more hope than Prussia could to the faithful Achard, who presented samples of his products to the Institute of France, which body made a close investigation of the new methods of sugar manufacture, and made such a favourable report thereon that before long several important refineries were established in France, and had the good fortune to receive imperial approval and support. The Emperor Napoleon, who had always a keen appreciation of practical things, clearly saw the magnitude and value of the discovery, and encouraged the industry so strongly that it ultimately took a permanent place among the industries of France.

IMPROVING THE BEET.

Previous to that time sugar was produced only in tropical countries, and mostly in the West Indies, realising very high prices, so that the introduction of a cheaper raw material, rendering it possible for sugar to be made in the countries of its main consumption, had the effect of almost revolutionising the sugar trade of the world. Science and industry having combined to put into practicable and profitable shape the original discovery of Marggraf's, it was not long before improved results were obtained. When first taken in hand by the manufacturer, beetroot only contained four or five per cent. of sugar, of which but one-half could be extracted as finished product, but when the agriculturist came to apply himself resolutely to the task of making the plant a better sugar-yielder he soon succeeded in growing beets that raised the productiveness to an average of from fifteen to sixteen per cent., while at the same time the improved methods of manufacture permitted thirteen or fourteen per cent. of the raw material to be converted into sugar. Then it was dimly seen what vast developments were possible to the sugar industries of the world when once a cheap raw material was available. Science became deeply interested in the matter, arguing that if sugar could be extracted from the beet there might be many other plants or roots of easy, cheap, and generous growth that would give equal and, perhaps, better results; but although sugar is now known to be a constituent in a greater or lesser degree of most plants at some period or other of their growth, beetroot still remains the only widely distributed plant that can vie with the sugar cane in ministering to the now enormous demand for sugar. For centuries sugar was used in Europe only as a confection or a medicine. In the early years of the present century the price per pound for the common varieties ranged from 6d. to 1s. 6d., while the best qualities fetched as much as 4s. a pound, and this, too, at a period when the consumption per capita was less than two pounds. To-day the average total sugar crop amounts to over 7,000,000 tons, of which 61½ per cent. is beet sugar. Other substances, such as glucose, honey, &c., are, however, being widely adopted as sugar producers.

A Genius for Business.

The Havemeyers were amongst the first to take up the sugar industry in the United States on anything like a large scale, and long before the era of trusts and giant combinations they were actively engaged in the business of sugar-refining. It was this industry that yielded wealth to William Frederick

Havemeyer, who may properly be considered the founder, or at all events the most illustrious member, of this now prominent family. It was his genius for business that built up, from a small undertaking in Brooklyn, the largest sugar refinery of his time and country, and when this was thoroughly established and he found himself in the possession of ample means he devoted a good deal of time to public affairs, and both as a politician and in municipal work achieved a high reputation. He was three times elected to the position of Mayor of New York, and was one of the few men who filled that office with perfect satisfaction to the citizens at large. His brother, Frederick Christian Havemeyer, was associated with him in the sugar trade. Both of them passed away a few years ago, leaving behind them great fortunes and a well-established and highly profitable business.

Mr. Henry Osborne Havemeyer, the Eastern Sugar King of later days, was the son of Frederick Christian Havemeyer, and was born in New York City in 1847. He received an excellent education in public and private schools, and in 1869 was admitted a partner in the firm of Havemeyer & Elder, bringing to bear upon that business an immense fund of natural energy and ability. In a very few years he worked himself to the first position in the management of the refineries, and assumed the main control of them. The position was one of extreme responsibility, the firm having the care of what was then considered to be an enormous business. But Mr. H. O. Havemeyer foresaw possibilities in the sugar trade far beyond anything that his predecessors had dreamt of. There was not a detail of the great business that he did not make himself familiar with; there was not a point of advantage to be gained that he did not contrive to reach. He was a man of business first and last. His whole heart was in the undertaking over which he presided with so much zeal and ability, and it was no long time before the young man found himself making millions where his father and uncle had been content to make their thousands.

A SHREWD COMBINER.

Mr. H. O. Havemeyer was one of the first to perceive the great advantage to be derived from a judicious combination of enterprises, and after a while he set himself the task of effecting a union of the principal sugar-refining firms of the country, then in rivalry with one another. It was a stupendous scheme to undertake, but Mr. Havemeyer was dauntless when increased profits were concerned. Nothing could keep him back. There was so much to be gained by combination that he was not to be turned from it. He pushed ahead until, instead of a score of big sugar concerns striving against one another, there was one mammoth organisation embracing them all, and acknowledging Mr. Havemeyer as their ruler.

LABOUR AND DIPLOMACY.

Thus, as the result of Mr. Havemeyer's strenuous labour and clever diplomacy, on January 12, 1891, the great American Sugar-Refining Company came to be established, in which corporation were merged the old firm of Havemeyer & Elder and numerous other large businesses, which in effect gave the command of the entire industry—in the Eastern States, at least—to this octopus-like trust, of which, naturally, Mr. Havemeyer was made president.

Mr. H. O. Havemeyer was distinctly the man of the moment in the sugar business, and may be regarded as one of the most striking examples America can offer, not of the self-made man who worked his way up out of nothing, but of the man who, with a good position assured to him from his birth, and starting from a high elevation, has the sense and ability to expand an already existing undertaking to greater proportions, and to make of an inherited fortune one many times larger. It is an old saying amongst the American people that there are only three generations between shirt-sleeves and shirt-sleeves—that is, between the man of humble beginnings who, before he achieved fortune, laboured without his coat, and the man of equally humble endings of the same race. The Astors and the Vanderbilts have already proved distinguished exceptions to this rule, and it is evident that the Havemeyers are about to form another exception.

NOT ALL SUNSHINE.

It has not been all sunshine, however, for the Havemeyers. They have had their times of anxiety and trouble, like smaller men, and have had to endure much envious and often unmerited criticism. It may be that some of Mr. Havemeyer's methods have savoured too much of the practices of Wall Street, and too little of legitimate and natural business expansion, but it cannot be said of him that he has exceeded the limits of those money-making rules which are recognised and permitted in the ranks of the trust manipulators of the great Republic. In his family there have been unfortunate occurrences of a domestic nature, but these are matters altogether apart from the story we have to tell, and are in no way associated with Mr. Havemeyer, except by links of kinship, so that we may pass them by without further comment.

Mr. Havemeyer, besides owning a palatial house in Fifth Avenue in New York, has a fine country mansion and estate at Greenwich, Connecticut, at which place he has presented a public school to the town at a cost of £50,000. He was married in 1883 to Louisine Waldron, daughter of Mr. G. W. Elder, a partner in the original firm of Havemeyer & Elder.

Passing from the Havemeyer sugar kingdom of the East to the glowing region of the Pacific Coast, where Claus Spreckels reigns, we touch a personal history of more than ordinary interest and significance, and enter upon an industrial domain which has been of much swifter growth than that of its Eastern rival.

SUGAR KING OF THE WEST.

Mr. Claus Spreckels is in every essential a man of the self-made type. He started his business career at the very bottom of the ladder, and is perched now somewhere very near the top in his own particular line, and is among the multi-millionaires of America. He is one of the many successful industrial leaders that the Fatherland of Germany has given to the United States. He was born at Lamstedt, in Hanover, in 1826, and at the age of eighteen, full of spirit and eager for adventure, he crossed to America, a land bristling with opportunities for a youth of his mettle. He went with no special aim in his mind beyond the general one of getting on in the world, and for a time he found life under the Stars and Stripes something of a struggle. This was not unexpected, nor was he unprepared for it; so long as he could make enough to live upon for a time he did not despair. First of all, he went to Charleston, in South Carolina, having friends there; but the languorous South did not afford him the opportunities he was longing for, so after a short sojourn in the State where the negro element preponderates he went to New York, the centre of the business life of the country, and there found employment which brought him into contact with a more active and promiseful existence.

Watching and Waiting.

To begin with, he had the idea of learning a trade, but riper second thoughts inspired him with a desire to keep himself unfettered, and, accordingly, he watched the course of business developments and embarked in such profitable enterprises of a miscellaneous kind as from time to time presented themselves. So, although he made steady headway and made money, there was nothing attending his residence in New York that at all foreshadowed the industrial eminence which he was destined subsequently to reach.

When the wonderland of the Pacific Coast began to attract so much attention, he was fascinated by the marvellous stories he heard concerning that romantic region, and, in 1856, left the Empire City and proceeded to San Francisco, where he opened a general store. This he conducted with as much success as could have been expected; but desiring a more rapid advancement, he sold his business and established a small brewery. This also, though profitable, was not a rapid enough money-maker for him, so in 1863 he sold that.

For some time previously Mr. Spreckels had been following with eager interest the developments which were taking place in the Eastern sugar trade, and it appeared to him that what was possible in the East was capable of being achieved, with even greater probability of success, in the golden city of the West. He was not a man to do things by halves, however, or to venture upon an undertaking with an incomplete idea of what was to be aimed at, or with lack of knowledge. He had satisfied himself that the project was one worthy of his utmost efforts.

There could be no doubt in his mind as to that, so, having a fair amount of money at command now, he betook himself to New York, and there for several months devoted himself to a careful and diligent study of the conditions of the sugar industry, making himself gradually familiar with every branch of the business. Primed with this new and valuable knowledge, he bought a complete equipment of sugar-refining machinery, and had it shipped out to San Francisco, where, without unnecessary delay, he shortly blossomed forth as a sugar refiner, calling his establishment the Bay Sugar Refinery.

SPECIAL MARKET OF PRODUCTION.

But while acquainting himself with the mechanical branch of his new industry he had also given close attention to the obtaining of the raw material, and had made arrangements for the importation of it from the Hawaiian Islands, where he had found the conditions very favourable to its production, and where already it was being successfully grown. A great impetus was given to the trade with Hawaii by the inducements offered by Mr. Spreckels; and the native planters, in a country

> "Where a leaf never dies in the still blooming bowers,
> And the bee banquets on through a whole life of flowers,"

began to feel a prosperity they had never before known. It was largely by reason of his being able to connect so easily with this special market of production that Mr. Spreckels started his sugar enterprise. He soon established a flourishing business, and for nine years the Bay Sugar Refinery remained under his direction and made large profits.

Then having obtained a full grasp of the industrial situation, he suddenly resolved upon a fresh plan of operations. He sold his interest in the Bay Sugar Refinery and disappeared mysteriously from the scene of his labours, being next heard of in Germany, where for many months he studied the methods of sugar-refining pursued in his native country. Then, having mastered all there was to learn, he went back to America, and in New York had fresh sugar-refining machinery constructed according to plans he had thought out in Germany, including many valuable improvements. This accomplished, he returned to California, and to the surprise of his old friends set up a large new refinery under the title of the California Sugar Refinery.

Mr. Spreckels was now complete master of the business, there was not a "wrinkle" in it that he had not caught, and he embarked upon his new enterprise with unbounded confidence. The new plant enabled him to do more business and in a much quicker time than formerly, and he soon outdistanced all rivals. Extension after extension became necessary, and by 1878 his production of refined sugar amounted to 255,000 lbs. a day. And all the time he was improving his machinery. Amongst other things he invented a process of making hard cube sugar direct from the centrifugals, which enabled him to produce in twenty-four hours what had previously taken six days to accomplish. This placed him still further out of the reach of competition.

BOLD STROKES.

When the Reciprocity Treaty with Hawaii was negotiated, Mr. Spreckels took speedy advantage of the opening thus presented. He made a personal visit to the Islands, and contracted for all the raw material that the planters could produce for a term of years. He also bought a large tract of plantation land on the island of Main, and created there the largest plantation and sugar-mill in the world. This stroke of policy proved exceedingly profitable, and necessitated the building on the Pacific Coast of a new refinery at a cost of £400,000. The new buildings were erected on a site of ten acres, with a frontage of 400 feet on deep water. Wharves and other accessories were constructed, and when the augmented undertaking was in full working order Mr. Spreckels's production was increased to 1,500,000 lbs. of refined sugar daily. The now gigantic enterprise of Mr. Spreckels soon filled the shipyards of the Pacific Coast with profitable orders. He built a large fleet of vessels, sail and steam, to bring the product of Hawaii to San Francisco, and the refineries and plantations together gave employment to thousands. For trading facilities he also established a commercial house as well as a bank in Honolulu.

There was a period when, as has been hinted, the Eastern and Western sugar forces were in fierce hostility. For four years the warfare raged. Each sugar king made a raid into the territory of the other, the contest being started from the East by the Havemeyer contingent's occupation of the old Bay State Works, once owned by Mr. Spreckels. The latter retaliated by erecting a huge refinery in Philadelphia, at a cost of £1,000,000. This refinery began working in December 1889, but by 1892 the Easterners had had enough of it, and bought Mr. Spreckels out at an advance of more than a million dollars over his original investment. This brought the war to an end, when, as a sort of thank-offering for his victory, Mr. Spreckels gave to each of his four children a present of one million dollars.

To-day Mr. Spreckels is one of the richest men in America, and all his investments have been connected directly with his own special industrial enterprises. Beginning life on nothing, he has succeeded in creating for himself an immense fortune, and while doing so has helped in an eminent degree to advance the prosperity of the Pacific Coast.

JAMES R. KEENE

THE KING OF THE "BEARS"

IN the now somewhat far-back days, when it was the custom for young and adventurous Englishmen to invade the United States with the idea of finding fortune there, and not for the Americans to come to England with that notion, James R. Keene, then a very young man, betook himself, in 1852, to America from London, intent upon working his way into something good. First of all he went to California, like so many more, to search for gold, and a long and a hard search it was, and not over successful. At all events the quest did not yield him much more than served for his ordinary needs, although he worked hard in both California and Nevada. In the end he got tired of digging for gold that seldom or never answered to the stroke of his pick, and retired in disgust to San Francisco. He was not blessed with much means, but he had an abundance of energy and shrewdness, and thought he saw a fair chance of success in the world of finance if he could only work his way into it. That was not to be done in a week or a month, or even a year, by a man who had to rely mainly upon himself. Even Jay Gould, with all his audacity, had to bide his time, and sell mouse-traps and other pedlary before he could force his way into the enchanted circle. So for a while James R. Keene contented himself with minor occupations, calmly taking stock of things as he went along, and educating himself in the ways and mysteries of speculation as well as he could while engaged in other branches of work. Then, in the fulness of time, when he was prepared with a little capital, a good deal of special knowledge, and a sphinx-like habit of secretiveness, James R. Keene quietly blossomed forth as a speculator in mining stocks.

LUCKY STROKES IN SAN FRANCISCO.

It required courage as well as skill to do business with the rough-and-ready men of the San Francisco Stock Exchange at that particular time, and for a while Mr. Keene operated with extreme caution. Risks were great, properties uncertain, and speculators unscrupulous. But, thanks to his few years of experience in the gold-mining camps, Mr. Keene had a more particular knowledge of the real worth of stocks and securities than the ordinary operator had, so in time he succeeded in establishing himself on a substantial footing and began to make money fast. When the "bonanza" period of the early "seventies" arrived few were better prepared for getting through the rush with credit, and some of his deals were of the masterly kind that attract wide attention and secure valuable clients for a financier. It was seen that he was a man to be trusted not to venture out of his depth, and business flocked to him at an enormous rate. Between 1870 and 1877 he is said to have accumulated a fortune of over £1,000,000, and in such high esteem was he held that he was elected President of the San Francisco Stock Exchange. Then, thirsting for fresh worlds to conquer, he turned his face Eastward, and, with his Western reputation to help him, made bold to begin operations in Wall Street itself.

EARLY WALL STREET SPECULATIONS.

It was a rather daring venture, perhaps. American operators were none too friendly in those days to invaders of their financial markets, especially when the invaders were British. But Mr. Keene was not easily affronted or diverted from a purpose that he had once embarked upon. He simply held calmly on his way, and in time was as American as the best American in Wall Street. He had full confidence in himself, and soon gained the confidence of investors. Many rich men entrusted him with the control of their speculations when they saw how cautious and able he was in his operations, and the day came when Mr. Keene became almost as active in the creation or breaking of "corners" as Jay Gould had formerly been. He was never, however, a great operator on his own account—at least, not until within recent years. He acted as broker for the big pools, usually backed by the Standard Oil Company, the American Tobacco crowd, and the Whitney-Widener-Elkins syndicate, which controls the Metropolitan Street Railway of New York. These gentlemen were accustomed to trust their stock market operations almost exclusively to Mr. Keene, whom they regarded as one of the greatest stock-manipulators of recent years.

SOME FAMOUS "CORNERS."

Long before Mr. Keene began his great raids in sugar, which first made his fame in Wall Street, the art of "cornering" had been indulged in with splendid daring and ability by some of his predecessors. He had, therefore, plenty of examples before him. Mr. Keene had studied the why and the wherefore, the causes and results, of the various big "corners" of Wall Street annals, and was able to reckon them up carefully, and go with or against such as arose as his judgment might dictate.

One of the first "corners" was in 1835, in connection with the old Morris Canal deal, when a few New York and Newark men bought the stock up at from thirty to forty points below par, and then forced it up until it reached a point far beyond its intrinsic value, and locked the stock up in their strong boxes. Then the "bears" began to operate, but there was no moving the "corner"-men from their position. They were the dictators, and ultimately compelled the "bears," whom they accused of selling something they did not possess, to settle on very high terms. "Commodore" Vanderbilt undertook a similar campaign with the Harlem railway stock thirty years later, buying all the stock he could get hold of for $8 and $9 a share, then, by making improvements, and by effective manipulation, making the stock go up to $75, and later to $179, the wily "Commodore" realising over £1,000,000.

Then, some ten or twelve years before Mr. Keene went into Wall Street, there was the remarkable "Prairie Dog" corner, worked by a daring band of financiers, by which stock that was selling for 60 in November advanced within two weeks to 250. Something of this kind was effected, with Jay Gould as the manipulator-in-chief, in 1872, when North-West stock, which had been not too easy to sell at 60, bounded up to 280 in a marvellously short time. During one single day the price rose 105 per cent.

JAMES R. KEENE'S LATEST "CORNER."

Mr. Keene may be trusted to know all about "corners"; he has had to do with so many of them since he established himself in Wall Street in 1877. Sometimes he is in them, and controls them, and then some one gets a good "squeeze." More often he is looking on from the outside, catching what he can from the overflowings. In the spring of 1901 Mr. Keene, who is an ardent sportsman and a keeper of race-horses, was in England for health and recreation, and while he was here certain lively moves were made on the New York Stock Exchange, which interested him so much that he took an early steamer and returned to America. Mr. Pierpont Morgan, Mr. James J. Hill, Mr. Harriman, Mr. Rockefeller, and others had been very busy in connection with certain great steel and railway deals, and it seemed advisable that Mr. Keene should be on the spot to take a turn in these exciting affairs. When he reached New York there was a fierce conflict on, and presently he was in it. At one time it had seemed as if the much-heralded capture of the Northern Pacific by the forces of Morgan and his associates would become an accomplished fact, and there was a good deal of operating done in that belief. Then came that great slump in Northern Pacifics, which created one of the worst panics that Wall Street has suffered for many years. This was on

Thursday, the 9th of May 1901, when there was reported to be a shrinkage in values of this particular stock to the enormous amount of nearly £30,000,000, causing great fortunes to be lost and won that day. Mr. Keene was for once one of the prime movers in a tremendous "cornering" of stock, and, although he was opposed to many of the financial giants of Wall Street, he managed to capture, it was said, for himself and his associates, a clear profit of £1,500,000, of which his own share was £500,000. Mr. Keene's triumph was all the more remarkable from the fact of his not being in at the beginning of the fight for the control of the Northern Pacific. Becoming aware of the contention between the Hill-Morgan influences on the one side, and the Vanderbilt-Rockefeller interest on the other, he edged in between the contending syndicates of multi-millionaires and secretly purchased all the floating stock in sight, and when the "shorts" sought to cover their Northern Pacific sales there was no stock to be had. It was thus "cornered," and the stock jumped to £200 a share, and among the results were—a panic on the Stock Exchange, and a profit of half a million pounds for James R. Keene.

OTHER FAMOUS KEENE "DEALS."

Among the more famous of Mr. Keene's previous Wall Street "deals" may be mentioned the following :—American Sugar-Refining "deal," manipulated in 1897, when, between March and September, the stock was advanced from 109½ to 159½, Mr. Keene profiting to the amount of £400,000. American tobacco, worked from 117 in May 1895 to 51 in August 1896, netting Mr. Keene £600,000. In 1893 his operations in National Cordage stock resulted in a drop from 147 in February to 7 in August, by which the financier made £800,000. From his handling of Brooklyn Rapid Transit stock in 1899, he caused a decrease from 137 in April to 61 in December, and out of this engineering profited £300,000. Against these great gains occasional losses have to be set, or the financial game would become monotonous. One of his most serious mistakes was in 1900, when he lost some £400,000 in connection with New

York Third Avenue railway stock. This was a blow to Mr. Keene, and the anxiety attending his efforts to save himself caused his health to break down, and it was announced that it was his intention to relinquish his office in Wall Street and retire into private life and the enjoyment of his ample fortune. After a trip to Europe, however, accompanied by his friend and medical adviser, Dr. Austin Flint, and a few months of rest, his old ardour revived, and instead of wanting to sever his connection with Wall Street, he resumed operations with all his wonted spirit, and the "king of the bears" was happy once more. Retiring from business is all very well for some people: it is impossible to others; and had Mr. Keene not been in Wall Street in May 1901 he would have missed winning that little sum of £500,000, which was worth a few days' financial manipulation to gain.

One of the Giants.

It has already been said that Mr. Keene is secretive and cautious. He trusts himself alone, and has no confidantes. Men have tried hard to get him to talk about his business, but that is not his way; and he rarely commits himself to definite statements in writing, knowing too well the danger of putting things down in black and white regarding matters in which there is an eternal game of topsy-turvy being played. But people have faith in him; he is the sort of man whose lead is followed. One who is supposed to know Mr. Keene rather intimately speaks of his characteristics thus:—"Human nature helps him. More than once it has been announced that he had failed. He may have been privy to the announcement. It is difficult to get the exact measure of a physical giant, but it is much more difficult to conceive what may happen when a giant who has a brain commensurate with his physical proportions enters the field. Mr. Keene is one of that stamp. According to report he has been broken more than once. But has he been broken? Do those who tell these things know? In answer to this, as a general proposition, I would say 'No.' Some men require support;

some men give it. Mr. Morgan is of the latter kind; so is Mr. Rockefeller; so is Mr. Keene; and the first and second confide more to the third than the third considers it necessary to confide to them." Mr. Keene is not altogether a "bear," but he never permits his temperature to rise above a certain degree. He may now and then make a considerable amount of money "on the rise," but at heart he is a "bear," and it is as a "bear" that he has made most of his great financial strokes.

A GOOD TURN.

Mr. Keene is something more, however, than a hard business man. He is a man of a warm heart and of many open-handed charities, and he never forgets an old friend. It is related that among his early associates when he first went to New York from San Francisco was a man who had fought the financial fight side by side with him in Wall Street for many years, but in the long run suffered defeat and was compelled to relinquish the struggle. He lost everything he had, and it was impossible for him to rally. When Mr. Keene saw what had happened to his old friend, whose years prevented him from resuming the strife, even had he been able to command the capital, the "king of the bears," for remembrance' sake, took steps to render the evening of the old man's life comfortable, and the delicate way in which he accomplished this is one of the most considerate things that probably ever occurred to a busy financier. The old man was surprised to learn one day from Mr. Keene that the latter had discovered "a long-forgotten investment" that his unfortunate friend had made in years gone by, from which there was now realisable a sufficient income to supply the poor fellow's future wants. It is not often that one finds a man with the heart and tenderness of a Caleb Plummer in a giant of finance.

Another instance of Mr. Keene's thoughtful generosity may be mentioned. It is one that is well authenticated. There was another of the unfortunates of Wall Street, whom he had known in happier days, who called upon him at his office one day, and expressed a strong desire to go out to the Klondike to try and retrieve his fortune. He was over sixty years of age, but still hopeful and self-reliant. "I think I can stand the Klondike all right," said the man; "anyhow, I am willing to try it; it's no use in my condition hanging around the old scenes." "Come in and see me to-morrow," said the millionaire. That same evening Mr. Keene made it his business to call upon some old friends as they sat in a favourite haunt discussing a bottle of wine, and he mentioned the old man's case to them and his wish to go out to the Klondike as a last chance. "I think we ought to put the money up for him," said Mr. Keene; "if he has luck we shall all be glad and shall get our money back; if he fails, well, we shall be more sorry for the poor old chap than for the loss of our money. That show of the right spirit in him is worth it twice over." After that there was no difficulty in getting what money was required. The financiers freely subscribed sufficient for the man's expenses in the Klondike for two years. Before the two years expired news came from Alaska that the adventurous old man had located claims worth £50,000, and was intending paying a visit to his friends in New York to settle old scores.

MR. KEENE AS A SPORTSMAN.

For many years Mr. Keene has been an ardent follower of gentlemanly sports in his leisure moments, and his stud of racehorses has included many winners of leading events. He has interested himself also in racing movements and keeps a stable in England. He is an esteemed frequenter of the turf on both sides of the Atlantic. On the occasion of his horse, Cap and Bells, winning the Oaks stakes he presented half the stakes, £2650, to the Princess of Wales's Hospital Fund. In his palatial house in New York he has a fine collection of paintings and other objects of art, and is essentially a man of taste and culture. Born in 1838 in London, he is now sixty-three years of age, and in the prime of physical health, despite the long term of strain to which he has subjected himself in the financial capitals of the West and the East.

OHIO C. BARBER

THE MATCH KING

OHIO COLUMBUS BARBER is one of those born business men who have the capacity of making fortunes out of the handling of small things on a large scale. He is not simply a financier, who by company-floating and stock-manipulation has contrived to realise a large fortune, for although he has unundoubtedly achieved much in that direction, he has all along had distinct trade associations and has been particularly identified with one special industry. He has been a matchmaker all his life. At the first blush, it does not seem to amount to a very great deal, perhaps, to be a maker of matches, any more than to be a maker of blacking, or soap, or blue, or starch, or mustard, but we have to confess that many of the world's most prominent industrial captains are men who have made their wealth by the successful following of such businesses. Everything depends upon the scale upon which an industry is prosecuted. A man who made matches or any of the articles mentioned on a small scale could not make a living out of it, for the monarchs of these trades, by the vastness of their operations and the consequent economising they are able to effect in every branch of the manufacture, can produce vast quantities at such a low price that the small manufacturer cannot compete at all. Therefore, in this particular connection, it behoves us not to "despise the day of small things." It may sound much more important to talk of steel and iron and coal magnates, of shipping kings, and the like, but in the course of this article it may perhaps be shown that even in respect to that cheapest and most insignificant and yet most useful of everyday commodities, the common lucifer match, it is possible to operate on so distinguished a scale as to bring the industry into line with what we are accustomed to regard as the more important and older trades.

THE FIRST LUCIFER MATCH.

Matchmaking is a strictly modern industry, as everybody knows. There are people still living who can remember when the lucifer match was not; when, for the striking of a light, flint and steel had to be resorted to. In fact it is only some two or three years ago that the inventor of the lucifer match—Sir Isaac Holden, Bart.—died. It will be interesting as a starting point to this little history of the match trade to recall this achievement, and we cannot do better than use the words of the inventor himself in describing his invention to a committee of the British House of Commons, merely premising that Sir Isaac, in his later years, originated other inventions connected with the textile processes out of which he made a large fortune. "I began as an inventor on a very small scale," said Sir Isaac. "For what I know, I was the first inventor of lucifer matches; but it was the result of a happy thought. In the morning I used to get up at four o'clock in order to pursue my studies, and I used at that time the flint and steel, in the use of which I found very great inconvenience. I gave lectures in chemistry at the time, at a very large academy. Of course I knew, as other chemists did, the explosive material that was necessary in order to produce instantaneous light; but it was very difficult to obtain a light on wood by that explosive material, and the idea occurred to me to put under the explosive mixture sulphur. I did it, and published it in my next lecture, and showed it. There was a young man in the room, whose father was a chemist in London, and he immediately wrote to his father about it; and shortly afterwards lucifer matches were issued to the world. . . . I was urged to go and take out a patent, but I thought it was so small a matter and cost me so little labour, that I did not think it proper to go and get a patent; otherwise, I have no doubt it would have been very profitable."

AN EARLY AMERICAN MATCH FACTORY.

This was in 1829, twelve years before Mr. O. C. Barber was born. If Sir Isaac Holden had only taken that patent out, what an immensely rich man he might have become out of that alone! But it was regarded as "a little thing," and it was not until some years afterwards that it was realised how very important the invention was to the world. Match factories were soon established in various parts, and match-selling became a feature of the street-life of every city. The distance that separates the ragged, bare-footed street-arab who sells matches from the match king who lives in his palace and associates with society's chief leaders on terms of equality, is great indeed; but to those who have been able by ingenuity, industry, and business power to place such a space between the head and the tail of their trade, praise of no ordinary kind must be due.

The part that Mr. Ohio Columbus Barber has played in the development of the match industry of the world has been of greater importance than the achievements of any other single individual. He was born on the 20th of April 1841, at Middlebury (now part of Akrom), in Ohio. His father was at that time established there as maker of lucifer matches, not in any very extensive way, but sufficiently well to enable him to take advantage of improvements as they came along. Improvements were needed, moreover, for in those early days most of the matchmaking was done by hand, and very poor matches they were; the sulphur, upon which Sir Isaac Holden had so prided himself, was too much in evidence and spread its unpleasant fumes around every time a match was struck. Matches were dear, too, users husbanding them with great care in those times, for it did not take many of them to represent the value of a halfpenny. The elder Barber, however, was a smart man of business, and kept pretty close on the track of the inventor, as each successive invention was brought out.

THE MATCH KING'S START.

The son, O. C. Barber, received an ordinary school education, and when old enough was taken into his father's factory and taught every branch of the business in which he was destined to become so prominent an operator. What is more, he liked the business, and from the first determined to use every possible effort to work the Barber match enterprise into the leading position. After being in the factory for a while, Mr. O. C. Barber was sent forth through the country as a travelling salesman, and a capital representative he made. It never occurred to him that there was any less dignity in selling grosses of matches than in selling tons of steel; so long as the matches were good, and fulfilled all the necessary conditions of a match, he felt on the same commercial level as any one else—even the highest. Mr. O. C. Barber, however, was so absorbed in his work, and so determined to make the family business a success, that he troubled himself little with thoughts about other matters. He would take care of one thing—the house's rivals should not be allowed to get ahead of the Barber firm. He soon succeeded in extending the connection of his father's business, and in the course of a few years there was not a city in America where the matches of the Barber Company were not to be obtained. When Mr. Barber entered the business, America was a long way behind England in the quality of the matches produced, and mainly because of the latter country possessing superior machinery. Mr. Barber was thoroughly alive to this, and, in a large measure due to his efforts, American match machinery was so greatly improved that it ultimately became the finest in the world. It is in labour-saving contrivances connected with minor industries that America especially shines, and success in the match trade in time became wholly a matter of machinery. Matches are sold at such very low prices that the manufacturers using the most effective machines necessarily possess advantages over their rivals.

THE BATTLE OF THE MACHINES.

Mr. O. C. Barber was quick to perceive this, and when, after having been employed for a few years as traveller, his father took him in as a partner, it was to the mechanical of the concern that he mainly directed his energies. He saw also that it was not sufficient, where the trade was cut so fine, and the margin of profit was so small, to have the right to use the same machinery as the best firms; it was of the first importance that they must own and control better machinery than other firms. This battle of the machines was a hard, a tough, and a long one, bitterly contested at all points, but the time came when Mr. Barber was able to say that, in regard to completeness of mechanical arrangement there were none to excel them. Mr. Barber became managing partner of his firm, and, later on, its head, from which the business was carried on with splendid energy. Not only did the Barber Company under his rule become one of the greatest undertakings of its kind, but it had the effect of giving an impetus to the American match trade generally, and in the State of Ohio especially. A town arose around the Barber match factories, Barberton being to-day quite a considerable place. The Barberton concern, which is the largest in America, can turn out 100,000,000 matches a day, probably a seventh of the entire consumption of the country. There was not an advantage that Mr. O. C. Barber failed to avail himself of. Next to the gain by special labour-saving machinery he managed to secure a considerable measure of control over the aspen production. America grows aspen in abundance, the timber which that tree yields being superior to all other timber for matchmaking on account of its natural qualities and the ease with which it can be worked. It is light, spongy, and splits easily, and though pine, linden, birch, and other woods are used in America as well as in other countries, aspen is the best of them all for the purpose. European match manufacturers have been engaged in a scramble for years to secure a sufficient quantity of aspen. Germany imports from Russia about 3,500,000 cubic feet of aspen every year to supplement her own supplies. The German Minister of Agriculture and Forestry has recently been petitioned by native match-manufacturers to cause greater attention to be paid to the growing of the aspen. Similar appeals have been made in France. Fortunately for America, the home supply of aspen is very large, the wood being little used for other manufacturing purposes.

A GIGANTIC ORGANISATION.

In 1889 the Barber Match Company were at the head of the match industry of America, and Mr. O. C. Barber was in a position practically to dictate what the course of the home match trade should be. It was then that he conceived the idea of effecting a consolidation of all the leading match concerns of the country in one gigantic trust scheme. This was a stupendous scheme for that time, inasmuch as the trust idea was only then in the early stages of its development; but by degrees he worked the plan out, obtained the co-operation of all the chief houses, and the Diamond Match Company, with a capital of £3,000,000, was successfully floated, Mr. Barber becoming president of the undertaking. This was a great achievement, and it not only had the effect of further strengthening his position, but of largely augmenting his wealth, which was already considerable. After that Diamond Match shares became of importance on the Exchanges of America, and there was a good deal of speculation in them. As a result of a speculative campaign in this stock in 1896, when a flurry supervened, the well-known financial firm of Moore Brothers of Chicago was forced to the wall with liabilities estimated at £800,000. The Moores had been the original organisers of the Diamond Match Company, under the direction of Mr. Barber; but after their failure they had to retire from the directorate. The mistake then made by the Moores, however, has been more than atoned for by later successes, they being to-day amongst the most successful of American financiers, and long ago cleared off their indebtedness to the Diamond Match Company and all their other old creditors. Still, apart from the speculation of others, the Diamond Match Company was a huge success, owning a practical monopoly of the match industry of America.

FOREIGN INVASION.

From this time Mr. Barber figured perhaps more conspicuously as a financier than a match king. For all that, he never relinquished his interests in the match trust, and is to-day as prominent in extending the sphere of activity of the Diamond Match Company as ever. America he conquered long ago, now he is bent upon conquering Europe, that is, as far as the match industry is concerned. To begin with, the Diamond Match Company established a British concern in Liverpool, and it would now appear that Mr. O. C. Barber's ambition extends to the bringing about of a universal match trust—one that will merge all the match industries of the world into one gigantic undertaking. Already the greatest of English match-making firms—that of Bryant & May—as well as certain Swedish concerns have come in under the amalgamation, and it is within the possibilities that Mr. Barber's scheme may some day be realised. Until within the last few months there was a thorn in the side of the Diamond Match Company at home. That has now been removed. Mr. Edwin Gould, son of the more famous Jay Gould, is president of the Continental Match Company of New Jersey, and this company has been the only rival of importance that the Diamond Match enterprise has had to seriously consider. Mr. Gould's company is now in alliance with Mr. Barber's company, and it now only remains for the conquest to be extended to Germany and France to constitute Mr. Barber, not only in name but in actuality, the king of the match trade of the world. In referring to the Bryant & May absorption scheme, Mr. Barber, in addressing the meeting convened for the purpose of sanctioning the arrangement, said: "We propose this remedy so that we shall save waste and both make more money. By putting the two plants together, and by bringing the machinery of Bryant & May up to our standard, your dividend of fourteen per cent. will be absolutely assured to you, and we can make a living for ourselves." Pursuing such a policy, there seems to be no valid reason why Mr. Barber should not in time succeed in obtaining a monopoly for himself and those who are associated with him of the match trade of the whole universe. What the advantage to the public would be is perhaps not quite so clear as the advantage that it will be to Mr. Barber and his friends. That Mr. Barber has been an active as well as a successful man of business is known to many, and his opportunities for venturing into other schemes have been many. He is president of the Ohio Tube Company, and vice-president of the General Fire Extinguisher Company, as also of the Stirling Boiler Company. But, all other undertakings apart, he has been a matchmaker throughout his career, from the time when he first entered his father's factory as a boy to the time of his making his Diamond Match operations cover much of the continent of Europe as well as nearly the whole of his native country.

As colophon to this notice of Mr. Barber's career, I may cite a good story of that famous financier, Baron Nathan de Rothschild, founder of the great house in St. Swithin's Lane.

One day at a dinner party in London, his hostess committed to his care a lady who was not slow to take advantage of her opportunities. She happened to have an only son; she wished to place him well in business, and so the happy thought occurred to her that nobody could advise her so well as the Baron. So, during dinner, she kept plying him with questions as to what was a "good business" in which to place her young hopeful.

The great man parried her worrying inquiries for some time very patiently, but at last he could stand the infliction no longer. He suddenly laid down his knife and fork, pushed back his chair, and exclaimed, "Madam, selling lucifer matches is a very fine business, if only you have plenty of it!"

JAMES DOYLE

THE VICTOR GOLD MAGNATE

In the race for gold, Colorado has during the past few years reached a point of greater output than even California, and there seems to be every probability of what used to be called the Silver State keeping the lead and becoming pre-eminently the Golden State. In the matter of total production, California still holds the first place; but then its record covers a period of over fifty years, while that of Colorado only dates from 1859. In the nineteen years that followed the first discovery of the precious metal in California—1848 to 1867—the State emptied out of her treasure vaults not less than £147,000,000 worth of gold, eclipsing the record of Victoria by £11,000,000. But in recent years California has been considerably outdistanced in the yearly value of its yield of gold, the proportions being between three and four million pounds for California and between four and five millions for Colorado. The great increase in the rate of production in Colorado dates from 1892, when the Cripple Creek "boom" set in.

THE YOUNG MAN FROM MAINE.

In that year there was a young clerk serving in a druggist's shop at Colorado Springs, doing his duty in his humble way without any particular ambition for anything higher. He was a native of Portland, in Maine, and had drifted out to Colorado a few years previously with the general hope of bettering his condition, but never dreaming of becoming wealthy. His parents were humble sort of people, who had been able to let their son have the advantage of a fair schooling at Portland, but that was about all; but young Doyle was bright and persevering, and when, after a varied course of wandering, taking a job here and a job there, he ultimately landed at Colorado Springs, at the foot of Pike's Peak and close to the Garden of the Gods, he had not much difficulty in obtaining a position. Hearing of a vacancy for a clerk in one of the drug-stores, he offered himself for the post and got it. Not that he had any special knowledge of the drug business, but for the clerk's position that did not matter a great deal; he was quick with his pen, had a head for accounts, and was a handy kind of young man to have about a shop, so he and the druggist got along together very well.

James Doyle found life at Colorado Springs fairly enjoyable in those days. At home in Portland he had seen much of the coming and going of ships, and had often felt a strong desire to try his fortune at sea, but that would probably have meant going abroad, and young Doyle was, above all things, patriotic; and so, when his mind grew restless and was not to be calmed without change of scene, he had determined to press forward to the West, of which the dwellers in the East were for ever hearing glowing stories of advantage and adventure. So James Doyle went out to try his luck and settled himself in Colorado Springs.

A QUIET TIME.

In the "eighties," as now, Colorado Springs was a great health resort, and many rich people from the East came out to live there, especially those who were suffering from consumption. The dry and genial atmosphere, resulting from the close contact of the place with the highest portion of the Rocky Mountains range, and the great altitude of the city itself insured conditions exceptionally favourable to those afflicted with lung troubles. Many of these people were induced to invest in mining ventures—silver at first, for the most part, then gold—and when they used to call at the druggist's shop to have their prescriptions made up they would talk confidentially with the clerk on the subject of their investments, and gradually Doyle found himself taking a deep interest in their stories. It was easy for them to put a few thousand dollars into a mining scheme and wait patiently for results. To young Doyle a money investment was out of the question. He was not earning much more than sufficed for his daily requirements, so that if he ever did venture into mining speculations it would not have to be as a capitalist. But day by day stories were brought to him of fresh discoveries in various parts of the State, and it presently began to dawn upon him that there were many men out among the foot-hills of the mountains who had gone out there as poor as himself and were then becoming rich from having made lucky "strikes." These were the men whose operations attracted the money of the capitalists, and if developments were favourable, as they so often were, made wealth both for the capitalist and themselves. In reflecting upon these matters, the drug clerk came to the conclusion that one day he would join the adventurous army of prospectors, in the hope that he too would in time have something worthy of the attention and the money of the capitalists. Meanwhile, he was in no hurry. His position at the drug-store was an agreeable one. His master was kind and generous, the customers were chatty and friendly, and while preparations were being made up he contrived to learn all that was going on in the mining regions; who were making fortunes, and who were losing them, and which localities offered the best opportunities.

THE STORY OF A "BOOM."

Then came the great Cripple Creek "boom." It was a great and a sensational discovery which revealed the presence of gold in remarkable quantities in the Cripple Creek region. This part of the base of Pike's Peak had been a point of attraction so far back as 1849, but no serious attempts were then made to follow up the few traces of gold that had been come upon, and for a quarter of a century or more matters settled down without any further movement being made in that direction. In 1884, however, there was a fresh rush of fortune-hunters across the Pike's Peak district, the men taking the way of Mount Pisgah, passing over the very ground where, seven years later, other gold-seekers were to unearth what many regard as the richest gold vein in the world. But the great surprise was not to be revealed until the 20th of January 1891, when two mining men from Colorado Springs, well known to James Doyle, visiting a remote ranch on the ragged verge of Cripple Creek, came upon a sight that dazzled their eyes and made their mouths water. From that favoured spot, where nature had been hiding for ages some of her choicest treasures, they secured twenty-five samples of ore, not from untouched ground, but from abandoned workings along the stream, and when these samples had been through the hands of the assayers, they showed a value of from £2 to £40 a ton. Needless to say, the fame of Cripple Creek was made after that assay. How Cripple Creek has progressed since then! What a "boom" it was that followed! The output of the camp in 1891 was about £40,000, while in 1900 the amount for the year reached about £4,507,640. In 1890 Cripple Creek was a mountain wilderness, lovely enough, but lonely; to-day it is a municipal city with a population of 25,000; while all the country round about is thickly inhabited with active mining communities from which rich stores of gold are being continually extracted.

MR. DOYLE REFLECTS UPON THE SITUATION.

When James Doyle heard of the Cripple Creek discoveries he was greatly exercised in his mind; his pen didn't run as easily as was its wont, the accounts he had to enter up in his books seemed paltry, and the letters he was called upon to write failed to interest him. He had caught the gold fever; not in the form that W. S. Stratton had suffered from it—a long and trying fever lasting over many years and borne with exemplary patience—but a sudden seizure that had to be followed by quick action or abandoned, for the drug clerk was not of the philosophic temperament, and could not wait and brood. Everybody was full of Cripple Creek in those days of 1891-92; the denizens of Colorado Springs, rich and poor, healthy and consumptive, could talk about nothing else; and in the drug-store where James Doyle was at his desk behind the counter, within hearing of all the wonderful tales that were brought in from the new camp, there was more chatter of gold indulged in than in any other place in the city, probably, except in the halls and bars of the hotels. And one Sunday in the spring of 1892, when the days were growing warmer, and people were pressing forward in greater numbers than ever towards Cripple Creek, James Doyle and a couple of friends retired to a quiet nook in the foot-hills and earnestly discussed their respective prospects. The names of the friends were John Harman and James Burns. The conclusion that the trio arrived at was that Colorado Springs was no good at all, and that Cripple Creek was at any rate worth a trial.

INVESTS IN A DONKEY.

The next day Mr. Doyle intimated to the druggist that at the end of the week he would leave his service. Meanwhile Harman and Burns went on ahead to try their luck. Doyle had saved a little money, but when he had invested a portion of it in the purchase of a donkey, and a further portion in a stock of provisions and certain mining implements, it was but a very small sum that he had left. With what he had, however, a few days later he set out, accompanied by his donkey, and made his way quietly and hopefully towards Cripple Creek. So many people had preceded him that when, after toiling up and down the mountain passes for several days, he reached the camp, he found it overcrowded, and the prospect hardly seemed so hopeful as when he had thought about it in Colorado Springs. Finding up his friends Harman and Burns, they tried several claims, one after another, without coming upon the coveted gold, and after a few weeks of this kind of experience

Mr. Doyle occasionally wondered whether he had been wise in giving up his clerkship in Colorado Springs, but news of fresh discoveries by other men soon chased away his doubts and misgivings, and he plodded away as cheerfully as ever. Mr. Doyle showed great shrewdness, and whenever a new discovery was made he set himself calmly to consider the meaning of it, and in time began to have certain notions of his own regarding the probabilities of the different districts. He imparted his views to his friends Harman and Burns now and then, and one of the results of their communings was that each of them was afterwards to be found prospecting in places apart from the Cripple Creek camp.

A SPLENDID STROKE OF LUCK.

Mr. Doyle betook himself to a part of the mountain range in the direction of Victor, and continued his quest out there under more promising conditions. His faithful donkey and a dog were his sole companions. Now and again he met with other prospectors, most of whom passed on assuring him that he was wide of the scent; but Mr. Doyle was one of that persistent sort that finds a pleasure in pursuing ways that others do not take to. Besides, the life had begun to have a strong allurement for him. The touch and charm of gold seemed to rest upon the landscape everywhere—on the purple folds of the mountain sides, on the rivulets that trace their silvery courses along the valleys, on the precipitous rocks that guard the hilly passes, and on the far-spreading plains over which the scattered flocks and herds spread themselves so peacefully. At its worst it seemed preferable to the drug-shop. So the days passed, and he dug and he sampled; and although he did not unearth much in the shape of actual gold, the general indications seemed hopeful. His friends reported to him from time to time, and gradually worked themselves round into his locality. Thus matters stood when one morning he touched a richer bit of ground than any he had broken before, and took immediate steps to locate a claim there. He christened his claim the Portland, in honour of his birthplace, and, forming a partnership with Harman and Burns, it was not long before the ground was being effectively worked. They struck rich deposits from the very outset of their operations. Capital was readily forthcoming to assist in the development of the mine, and in a very short time the three men realised large fortunes out of their property. Mr. Doyle proved himself to be one of the astutest of business men. He entered into numerous other ventures, nearly all of which have turned out successful. Ten years ago he was a druggist's clerk, making only a few dollars a week ; to-day he is a man worth many millions of pounds, a gold magnate who cuts a great figure in the life and enterprises of Colorado, and is highly respected by all who know him. Wealth has not spoiled him. Not long ago an offer of £10,000,000 for the Portland gold mine was refused by him, notwithstanding the fact that he and his partners have already drawn far more than that amount of wealth out of it.

WILLIAM LUKENS ELKINS

THE PHILADELPHIA MILLIONAIRE

Few American capitalists have had a more varied or more successful career than William Lukens Elkins, the Philadelphian millionaire, who has been associated with so many enterprises of importance in connection with the industrial expansion of America. He is a native of Western Virginia, where he was born on the 2nd of May 1832, in a humble walk of life. There was nothing in his surroundings in his early years to help him forward much in a worldly way, nor did he show any special aptitude in scholarship while undergoing a brief course at one of the public schools of Philadelphia, to which city his family removed when young Elkins was eight years of age. In Virginia the associations had been mainly of a pastoral character; in Philadelphia he had the advantage of growing up in a community of an active commercial character where there were openings for boys of smart business instincts.

Clerk in a Store.

The beginning of his business career was about as modest a one as he could have hit upon. Whatever his ambition was, he did not aspire high at starting out; but that has generally been the way with American boys who have got on in the world. He accepted a clerkship in a general store—as Rockefeller, Armour, Pillsbury, Pullman, J. J. Hill, Ogden Mills, and so many more of the more successful Americans did at the outset of their business lives. From 1849 to 1852 he fulfilled his clerkly duties with satisfaction to his employers and credit to himself, and in the last-named year, having saved a little money and made some good friends, he set up in business in Philadelphia on his own account as a produce merchant. This was a stepping-stone indeed, and for the next nine years—that is until 1861—he worked hard and successfully in his establishment, which, under his active management, increased in importance every year, becoming eventually a concern of considerable profit. At all events it enabled him to get together a sufficient amount of capital for a more ambitious venture, and, selling out in 1861, he ventured into the Pennsylvania oil-fields and became an oil-producer on a large scale.

Goes into the Oil Trade.

For the next twenty years Mr. Elkins was known to the world as an extensive operator in oil—from his thirtieth to his fiftieth year—and it was never imagined that he would be anything different. He got "into the swim" early on; in fact he was working away at the oil-production long before John D. Rockefeller and the Standard Oil Company were heard of. It needed a level head in those days to manage an oil business successfully, there was so much of inflation, rash speculation, and imperfect method; but Mr. Elkins steered clear of entanglements for the most part, and when the Rockefellers came on the scene later on they found Mr. Elkins one of their most formidable rivals. From 1861 to 1875 Mr. Elkins kept resolutely to his oil business, and by the last-named year his position in the trade and as a capitalist was strong enough to admit of his being asked to join forces with the Standard Oil Company. This in itself was a strong recognition of his success and power, and for the next five years his interests were identical with those of the great Oil Company, and he strove loyally and ably to promote its advancement. Working side by side with John D. Rockefeller for those five years, watching the undertaking grow to enormous proportions, and participating in the great profits that were made, he was regarded as dedicated to Standard Oil interests for the rest of his days; and, indeed, it is not often that a man who is thoroughly and successfully established in business at the age of fifty cares to make a new departure. Mr. Elkins was one of the exceptions that prove the rule. After twenty years of the oil trade, the last five years of the time in connection with the oil enterprise that was at the head of all the rest, and yielding a magnificent profit, he sold his interests out to the other partners, and embarked upon an entirely different class of enterprise.

ALLIES HIMSELF WITH GAS SCHEMES.

Forsaking oil, he turned his attention to gas. Oil had provided him with a large capital, and he proposed to employ it in promoting undertakings for the employment of the more powerful illuminant. It was in 1880 that he separated himself from the Standard Oil Company, and the time was highly favourable to the spread of gas enterprises, notwithstanding the fact that not only was oil growing into more favour than ever, but that electricity was fast forcing itself into acceptance for lighting purposes. In no very long time the name of Mr. Elkins was to be found coupled with many large gas organisations in different parts of the country. Favourable concessions were obtained for working these, and Mr. Elkins made very large investments in gas plants in large cities. He organised the United Gas Improvement Company, which has a capital of £3,000,000.

ACQUIRES STREET RAILWAY INTERESTS.

In later years Mr. Elkins has become one of the most active spirits in the extension of street railway schemes, his interests extending to Philadelphia, New York, Baltimore, Pittsburg, Newhaven, Bridgport, and numerous other cities, in conjunction with P. A. B. Widener and other capitalists' operation, as the Elkins-Widener Syndicate. This syndicate is admittedly the strongest combination of its kind in

America, controlling more trolley lines than any other organisation. Among some of its later acquirements may be mentioned the trolley systems of St. Louis and Cincinnati, and a continuous chain of lines in Connecticut, including the street-car systems in Bridgport, Waterbury, Derby, South Norwalk, and Newhaven. The syndicate also owns heavy interests in electric lighting and power companies throughout the country, involving investments of many millions of pounds, and yielding an immense revenue. The surprise is that Mr. Elkins should have made the later portion of his life most conspicuous in its financial activity, and that, with an ample fortune to retire upon in 1880, he should have launched out more actively than ever, since then, upon a money-making career.

Mr. Elkins is a man of a generous disposition, and keeps himself in close touch with many movements intended for the advancement of the various cities in which he has large interests. To Philadelphia he has been a munificent benefactor, and he is specially noted for his good-heartedness and loyalty to old friends. Those who are associated with him in the management of the many undertakings in which he is the controlling spirit, are never weary of recounting his many acts of kindness and consideration. It is pleasant to work for him, as it is to work with him. He entertains magnificently, yet without ostentation. As an instance of the good-will and friendliness which he is so successful in promoting, it may be mentioned that not long ago, wishing to do honour to an old friend—Mr. A. J. Cassatt—he gave a banquet to him, to which he invited a number of special friends. The response was most gratifying both to the provider of the feast and to the guest of the evening. Thirty-seven guests accepted the invitation. The banquet was given at the Hotel Flanders, in Philadelphia, and was one of remarkable brilliance. Half of the men present were multi-millionaires, and it was said that the invitation of no other man than Mr. Elkins could have brought them together.

THE M'CORMICKS OF CHICAGO

THE HARVESTING MACHINE MAGNATES

One of the most extensive business establishments in Chicago is that owned and worked by the M'Cormick Harvesting Machine Company. It can hardly be realised in England what this great enterprise really signifies. In America, however, where agricultural machinery plays such an important part in farm work of every description, the name of M'Cormick stands for a great deal, inasmuch as the inventions which this famous firm have from time to time introduced have had the effect of almost entirely revolutionising the pursuits of agriculture. Of course, the M'Cormick machines are widely known and widely adopted in Europe; but on the British side of the Atlantic, in spite of the many developments which have taken place within the last thirty years, farming machinery is not of such universal application as in America. In America every farmer, no matter how small his holding may be, avails himself in one way or another—by hiring machines if he does not possess them of his own — of machinery for the execution of the main portion of his labour, and the M'Cormick Harvesting Machine is to be met with throughout the immense farming regions of the Republic.

A Virginian Plantation.

To get at the genesis of the harvesting machine, we have to go back to the early years of the nineteenth century, and to the State of Virginia. In the year 1809 there was a planter named Robert M'Cormick, of Scotch-Irish descent, living on a plantation at Walnut Grove, Rockbridge County, Virginia, who cultivated a considerable quantity of land and was regarded as a person of some importance in that part of the country. He was a man of an inventive turn of mind and introduced many improvements in farm implements and farm working. His property was of considerable extent, and upon it were employed a large number of labourers, black and white. The plantation produced large quantities of tobacco as well as the better known cereals, and Robert M'Cormick had a very busy time of it in managing his affairs. This did not prevent him, however, from exercising his ingenuity upon labour-saving contrivances, and among the inventions that stand to his credit may be mentioned a hemp-breaker, a thrashing-machine, and an improved bellows for the blacksmith's forge. The plantation, indeed, was of such extent that it was necessary to have upon it several saw and grist mills, a carpenter's shop and a blacksmith's shop, where operations of one kind and another were constantly being carried on. The inventions referred to were comparatively easy tasks to Robert M'Cormick, but he set himself the still more difficult problem of trying to evolve a successful machine for reaping. It was not by any means a new problem, for inventors had been puzzling their brains over it in different countries for centuries back, but all in vain. Robert M'Cormick did not despair for all that, and there is no doubt that he carried the idea to a point that was much nearer that of real utility than any of his predecessors had been able to reach. As luck would have it he was destined to receive help from a source that he had little anticipated, namely, from a member of his own family, his son Cyrus Hall M'Cormick, who had been born on the Walnut Grove plantation on the 19th February 1809.

THE PLANTER'S SON.

Cyrus Hall M'Cormick was a lad of great spirit and energy, who was fonder of the life on the plantation than of books and tutors. He spent some time at a public school not far from his home, and though a fairly apt pupil did not display any great appreciation of learning in its more ordinary forms. For scientific books he had some taste, and was often to be found studying them when other tasks were waiting to be performed. What absorbed his attention the most was the life on the plantation, into the spirit and purpose of which he entered with great vigour; and when his father observed that he spent a great deal of his time in the carpenter's and blacksmith's shops, and showed a strong interest in mechanical work, the old man was more than delighted, for it seemed to him that if he could only have his own son to co-operate with him in connection with the working out of the idea of the harvesting machine he would perhaps be able to succeed. The father, however, perceived at once that Cyrus had something more than a mere liking for mechanical inventions, for while only fifteen years of age the boy had invented a light, easy-acting grain cradle, which enabled him, a mere lad, to keep pace in reaping with the men. This was just the direction in which Robert M'Cormick wanted assistance, and it was not long before father and son were working side by side upon the one great and all-absorbing idea of the reaping machine. At the age of seventeen young M'Cormick invented a hillside plough, which was the first self-sharpening plough ever made.

FATHER AND SON INVENTORS.

Then followed a most interesting period of united effort on the part of father and son. They did not allow the work on the plantation to be neglected in any way, for at that time their entire prosperity depended upon the results they got from the fields; but in their hours of leisure they were to be seen applying themselves in the shops on the estate to experimenting with the various devices which one or the other of them invented. But, clever as the father was, he was soon outdistanced by his son, and by the time Cyrus Hall M'Cormick had reached his twenty-first year he had hit upon the leading principle of the invention that was later on to be perfected and to be for all time associated with the name of M'Cormick. Little by little he had succeeded in elaborating the idea of his father, and the time ultimately arrived when he was able to say that he had invented such a machine as would cut grain as it stood in the fields without the aid of human hands. This was certainly an era-marking invention—one of the master-strokes of the century as far as agriculture was concerned. The father regarded his son's effort with pardonable pride, and they at once set about patenting the invention, and arranged for a public demonstration of the machine, when it was to be tested before a number of leading Virginian farmers. This was in 1831, when Cyrus M'Cormick was only twenty-two years of age. The affair had been much talked about by the neighbours of the M'Cormicks, and some of the agricultural newspapers had discussed the matter, but no one was prepared for any great success being established. The agricultural mind was in a state of doubt generally as to farming machinery. The farmers had got on very well they thought with hand labour, and although steam power had made itself manifest in various other directions, and machinery was coming to be largely used in the staple industries of the country, it was hardly looked upon as possible for machines to be imported with any likelihood of general utility into fields of corn and wheat and barley. The attitude of the spectators, therefore, on this great occasion, when the M'Cormick reaping-machine was to be tested, was not one of favour exactly; but when the young man's machine was set to work and it was actually seen to cut several acres of oats cleanly, neatly, and in a very short space of time, the farmers began to think there was really something in the invention, and went home to talk about it in their quiet, easy-going fashion.

Difficulties in the Way.

The only people who were thoroughly satisfied with the results of the demonstration were the M'Cormicks themselves, who were able to see further ahead than their neighbours, and knew that they had solved the problem of centuries.

There was much to be done, however, before the machine could be put upon the market. Not only had ancient prejudices to be overcome, but a considerable capital would be required—much more than the M'Cormicks had at hand—before any attempt could be made to manufacture the reapers on a paying scale, so that the next year or so they simply waited and hoped, all the time making improvements in minor details of the machine; and then in the harvest time of 1831 another demonstration of the value of the reaper was made, when in the presence of a still larger number of people than had assembled in the previous year, the machine harvested over fifty acres of wheat in a thoroughly successful manner. But the times and the circumstances were not favourable exactly to the introduction of the machine, so instead of continuing his labours in connection with his invention Cyrus Hall M'Cormick took a position in an iron-smelting business in Virginia, from which he hoped to derive returns that would enable him later on to take up the reaper with greater promise of success. He continued to work in the iron trade until 1837, when, having got a little money together and also having made several further improvements in his machine, he felt prepared to take active steps to introduce the reaper to the world of agriculture. To begin with, he set up a small establishment, where, with one or two assistants, he was able to manufacture a few machines, for which he obtained ready purchasers.

Goes West.

It was not until 1845, however, that Cyrus Hall M'Cormick fairly launched himself out into the machine-making business. In that year he set up an establishment in Cincinnati, which was a more favourable centre to work from than his old home in Virginia. In Cincinnati he manufactured and sold within two years one hundred harvesting machines. Then, in 1847, he took the most important step of his life by removing to Chicago, which was at that time rapidly developing and becoming a great gateway for the agricultural interests of the Middle and Far West. At Chicago he built his own factory—the first works ever erected which were devoted exclusively to the manufacture of reaping machines. From 1847 to 1851 he worked steadily at his business, and was all the time making good progress. There was a great deal of uphill work about it, it must be admitted, for even out in the western region in which he had now settled there was a great reluctance to adopt new ideas, active and enterprising as they were in that part of the country.

INVADES ENGLAND.

Some months prior to 1851 Mr. M'Cormick had read about the great preparations that were being made in London for holding an exhibition of the arts and industries of all nations in Hyde Park, under the presidency of the Prince Consort, the approval of Government, and with the warm support of the people of Great Britain. It occurred to Mr. M'Cormick that if he could get his machine shown at that exhibition it would be the making of him. So he put himself in communication with the authorities in London, and took the necessary steps to insure the machine being included in the show. He afterwards went to London with his invention, and obtained a good place for it amongst the somewhat meagre show of agricultural machinery that the exhibition contained. At first the reaper did not secure much attention. The London *Times* took upon itself to ridicule the invention, describing it as a cross between "an Astley chariot, a wheelbarrow, and a flying machine." The feelings of the inventor may be better imagined than described on reading this contemptuous reference in the leading London newspaper to what had occupied so many years of his life in bringing to the point of perfection at which it stood. The farmers who came up from the country to see the great fair bestowed very little notice on the machine. It seemed to appeal to them even in a less degree than it had appealed to the farmers of the United States. Worse than that, the inventor received but very few orders for the reaper, and was beginning to think that after all he had made a serious mistake in crossing the Atlantic with his invention; when Alderman Mechi, a well-known London citizen, who took a great interest in farming operations, was attracted to it, and at once perceived that it was an invention of the very highest importance, and one that, if it could perform all that was claimed for it, would be the means of entirely revolutionising agricultural operations.

A London Alderman to the Rescue.

Mr. Mechi had the invention fully explained to him by Mr. M'Cormick, after which the worthy alderman arranged to give a special demonstration of the machine at his own private experimental farm in the country, and on the day fixed, not only was Mr. Mechi and a large number of prominent agriculturists present, but various representatives of the London press were there, having been invited by Mr. Mechi to witness the experiments. Mr. M'Cormick was now on his mettle. Everything depended upon the results of that day's experiments. If they were successful his invention would be favourably commented upon; and if it failed there would be an end for ever of any chance of his obtaining a sale for it in England. He had not much fear, however, about the result. He knew what it could do—the spectators did not; so when the machine was set to work upon a rich field of wheat, and the people present saw that it more than fulfilled the promise held out by the inventor, they were loud in its praise. Alderman Mechi was delighted, and congratulated Mr. M'Cormick most sincerely upon the splendid achievement which his machine represented. The next day all the newspapers were full of the new reaping machine. Even the *Times* made amends for its previous censures by declaring that the M'Cormick reaper "was worth the cost of the entire exhibition."

A European Triumph.

This was a great triumph for Cyrus Hall M'Cormick. His coming to Europe had not been in vain after all. He and his reaper became the talk not only of the agricultural communities of Great Britain but of those of Europe generally. Furthermore, the news was spread over the length and breadth of America, and such a demand set in for M'Cormick harvesting machines that it was altogether impossible to keep pace with them. The inventor went over to Paris and exhibited the machine there, and so warmly was it taken up by the French Academy of Science that he was elected a member of that body, and the Government conferred upon him the distinction of the Cross of the Legion of Honour. In London he of course received a first prize for his machine, and he found it necessary to exhibit it in the capitals of Belgium and Germany. Then, after being honoured in Europe as no man ever before was honoured for any invention in connection with agriculture, he returned to Chicago with a pocket full of orders and resumed operations on a much extended scale in his factory there.

A Great Change.

It was now that it began to be realised that the reaper of Mr. M'Cormick put the farmer abreast of the inventive spirit of the time. If reapers for harvesting were possible, it was now argued, many other machines for labour-saving in the field would be sure to follow. In fact a new era had been inaugurated, which had the happy result as years went by of providing the farmers with machines for carrying on all sorts of important operations in agriculture. It is claimed for the M'Cormick harvesting machine that it saves each year in the cost of bread an amount greater than the world's annual gain in wealth, while the value of the labour it has saved and released from agriculture is incalculable. The reaper has increased threefold the world's production of wheat, banishing the fear of famine which oppressed mankind fifty years ago, and making wheat so abundant that the best bread is no longer a luxury. The reaper has raised the working farmer from the status of a peasant, stooping in servile toil with a sickle, to the happy condition of a prosperous business man whose work is performed for him by labour-saving machinery. It may also be added that the reaper proved to be a corner-stone on which as been reared the largest organisation in the world for the manufacture and sale of machines for saving labour in agricultural pursuits.

AN ENORMOUS ENTERPRISE.

The present works of the M'Cormick Harvesting Machine Company comprise a floor space of over one hundred and forty-seven acres, with a machinery plant of unsurpassed magnitude. The situation of the works is a highly favourable one, being on the banks of the Chicago River, and therefore in direct connection with Lake Michigan, upon which the company have about fifty large vessels constantly employed throughout the season in bringing to the works the lumber and iron used in the manufacture of the harvesting machinery and the transportation of machines. This is a great advantage to the business, enabling the work of loading and unloading to be carried on at a minimum of expense. There is also a direct railway connection between the works and the Illinois Central Railroad. During the busy shipping season the M'Cormick Works send out a hundred cars daily, and the work of receiving material on the one hand, and of sending forth finished machines on the other, goes on perpetually from day to day at an enormous rate. Although the proportion of wood used in the construction of the harvesting machine is not large, still the operations of the company are on such a vast scale that the company are compelled to keep a great stock of wood. The M'Cormick lumber-yards contain on an average about twenty-six million feet of selected air-dried hardwood lumber, while of the cheaper lumber, of which boxes and crates are made, they use some fifteen million feet annually. The works themselves comprise five different floors.

Wonderful Machinery.

The foundry is always in active swing, and from enormous cupolas eighty feet above the surface of the ground three hundred tons or more of castings are poured each twenty-four hours, which is said to be the largest daily melt of grey iron of any establishment in the world. The foundry is, as may be imagined, equipped with the most perfect and complete automatic moulding machinery, mostly the invention of the M'Cormick technical staff. It is one of the most interesting sights that can be conceived to make a tour of these extensive works, watching the various ingenious operations necessary for the construction of a machine. The different processes are carried on in departments of large extent, each department dealing with a particular portion of the machine, which it turns out at a great rate; and at last, when the different parts are brought together in the erecting and fitting shops, it is marvellous to see with what dexterity the scattered parts are joined together, and how rapidly a machine can be built up. It is worthy of notice that the M'Cormick harvesting machines are constructed on the principle of interchangeability of parts; as is the case with locomotives and most other machinery now made in America, all the parts are turned out by special machinery, amongst which are to be found contrivances of great power and ingenuity. There are automatic nut and bolt making machines which turn out each day four hundred thousand bolts and nuts threaded and finished ready for use; there is an automatic apron-making machine which takes the canvas from the roll, hems the edges, and rivets the slatts, straps, and buckles at a rate of three miles of aprons per day of ten hours. Chain-belting is turned out by machines almost as rapidly as the links can be shovelled into a hopper. As an instance of the vastness of these operations of the M'Cormick works it may be stated that two million rake-teeth, eighty million sections, four hundred million rivets, fifty million bolts, nine hundred thousand yards of canvas, two million steel springs, and one thousand six hundred million nuts and tacks are amongst the few items of little things that form part of a year's output of these mammoth works. There is employed in connection with these works over twenty-four thousand people, made up of five thousand five hundred workmen, two thousand five hundred travelling salesmen, and fifteen thousand local salesmen.

Upwards of two million M'Cormick harvesting machines are now in use up and down the world, and as each machine replaces, on an average, the labour of ten men, it is clear that the M'Cormick machines now in operation provide an effective force equal to the labour of a harvesting army of twenty million people. The output of the works in the year 1900 was 329,000 machines, made up as follows:—97,000 self-binders, 147,000 mowers, 20,000 rake reapers, and 65,000 horse rakes. This does not include maize-corn harvesters, shredders, or sickle grinders.

Special Show in Paris.

At the Paris Exposition of 1900 the M'Cormicks found themselves in a very different position from that of Cyrus Hall M'Cormick at the original World's Fair in London in 1851. At the London Exhibition Mr. M'Cormick had had a very modest show of reapers; but fifty years had made a wonderful change, and for the Paris Exposition of 1901 it was found that the business of the M'Cormick Company had grown to such vast proportions that a properly representative show could not be made in the special building set apart for agricultural machinery. Under these circumstances the Exposition administration allowed the M'Cormicks the exceptional privilege of putting up a building of their own for their magnificent show of harvesters and other labour-saving machines. This building formed an attractive department, and was the scene of much favourable attention. Nor was this special display given in vain. When the list of awards came to be published it was found that no fewer than twenty-five medals had been granted to the firm, and the present Mr. Cyrus Hall M'Cormick (son of the founder of the firm of the same name, the great inventor) had conferred upon him the same distinction that had been awarded to his father nearly fifty years before, the Cross of the Legion of Honour.

Associated with the first Cyrus Hall M'Cormick for many years, Mr. Leander J. M'Cormick, his brother, greatly assisted in the development of the business, both in the matter of management and as an inventor. Mr. Leander J. M'Cormick was some ten years the junior of his brother, and his connection with the reaping machine enterprise dated from 1847, when he became actively engaged in the Cincinnati venture. Later, when operations were started in Chicago, he was made a partner, and from 1849 to 1879 had the responsibility of the management of the manufacturing department of the concern. He was a director of the M'Cormick Harvesting Machine Company from its formation in 1879 down to 1889, when he retired possessed of an ample fortune. During his long career he invented many important improvements in reapers, and the undertaking owed no small part of its success to his efforts. In 1871 he presented to the University of Virginia a large twenty-four-inch telescope, and the observatory was known as the M'Cormick Observatory. Mr. Leander J. M'Cormick died in 1900, in Chicago, to which city he was a munificent benefactor.

The present Cyrus Hall M'Cormick, who is president of the company, was born in Washington on the 16th of May 1859. He graduated at Princeton in 1879, and soon afterwards became a member of the M'Cormick Company, of which he has been president since his father's death in 1884. His brother, Harold M'Cormick, is the vice-president. There are few instances in America to compare with this of the M'Cormick enterprise, where a great firm has been in the hands of one family for generations, and where the reputation of the founders for inventive skill and business capacity has been so well sustained.

A Great Future.

The career of the M'Cormicks practically covers the period of the chief developments of agriculture in the United States. In the old days the farmer raised wheat year after year on the same land, until the soil became too poor, and then he planted corn, and when it would no longer grow corn, he sowed barley, or rye, and so on to beans ; indeed, as far as any real improvement was concerned, agriculture was in a state of extreme depression, until after the Revolution, when closer attention began to be paid to it. Little was done by the farmers, indeed, that was not forced upon them by necessity ; their wants were too many, and such vigorous exertion was demanded to provide what was indispensable, that they had little time to spend in making experiments or searching for new principles to be applied to practical farming. Washington favoured the establishment of a society for the promotion of agriculture, with Congressional aid, in 1794, but it was not until many years later that any active efforts were made in that direction. From 1810 to 1820 agricultural exhibitions began to be held in several States, and numerous societies for the promotion of farming were formed. It was in consequence of this kind of agitation that Robert M'Cormick, in his house on the Virginian plantation, first began to have a desire to enter the field with improved agricultural machinery. Jefferson had invented what became known as the hillside plough, and from that time onward great progress was made in the improvements of agricultural implements. One by one the rude contrivances which had sufficed for the early tillers of the soil were superseded by machinery that was both labour-saving and more effective in bringing the forces of nature into kindlier subjection. Probably the most important of these machines was that with which the name of the M'Cormicks will for ever be associated, and their later labours have kept pace with the demands of the time and the development of agricultural pursuits. At the present time the American farmer is aided in every branch of his industry by a remarkable series of ingenious machines which enable him to obtain results that tend greatly to multiply the fruitfulness of the soil and cheapen production. The position of the United States in regard to the products of the earth is altogether unique, for with all her achievements in the field the Republic is still but on the threshold of agricultural advancement. With her vast tracts of rich and fertile lands awaiting the plough ; with agricultural machinery which reduces farm labour to a minimum, and enables the farmer to cultivate a thousand acres with greater ease than he could have cultivated half a century ago ; with a variety of climate which permits the cultivation of every kind of crop, whether of grains or fruits ; with sufficient rainfall or irrigation to insure the perfecting of crops, and with ever-increasing facilities of transportation, enabling crops to be readily sent to the market, the farmers of the United States, present and to come, ought to find plenty of profitable employment. The farmers in the great Western lands have much to be thankful for in that the M'Cormicks and other inventors of agricultural machinery have made farming so simple and easy an occupation as it is, making prosperity possible where previously it was a hard struggle.

JAMES BEN ALI HAGGIN

THE RANCH KING OF THE WEST

One of the most picturesque personalities in America at the present time is that of Mr. James Ben Ali Haggin, who has had a marvellous career in various parts of the world, and has achieved an immense fortune by shrewd speculation in several enterprises of note. It is only in recent years that Mr. Haggin has come into great prominence in New York, but he is now one of the leading figures in club-land and sport-land, and has lately attracted considerable attention to himself by purchasing the property of the Progress Club, at the corner of Fifth Avenue and Sixty-third Street, which he proposes to remove from off the face of the earth and erect upon its site a palatial mansion worthy of the position and his neighbours, who are mostly of the millionaire order.

Carving out a Career.

Mr. James Ben Ali Haggin, whose name is a curious compound of Oriental and Western nomenclature (suggesting in the two middle names something of the magic of an Arabian fairy-tale, and, in its beginning and ending, appellations of a more homely significance) is a Kentuckian by birth. In his life as in his names he seems to have experienced a strange intermingling of the familiar and the unfamiliar, and there is certainly a good deal of the fairy-tale order of incident in the story of his career. He has moved about from place to place in search of fortune, and in most of his journeyings to and fro he seems to have been attended or led by some good power that has looked well after him.

At all events he has seldom in his adventurous career been wholly stranded.

Mr. Haggin was born in Mercer County, Kentucky, and spent his younger years here and there in the Blue Grass region, doing what came readiest, and picking up a good education in the local schools. It is not recorded that he acquitted himself with any special brilliance in acquiring his stock of learning, still he was bright beyond his years, and when old enough began the study of the law, with the view of becoming a Kentuckian lawyer. In due course he became a member of the Bar, but Kentucky did not seem to offer him all the opportunities that he desired, so he took himself and his wits and his ambition to another State and set up business eventually in Natchez, Missouri, where for a time he met with a fair degree of success. Mr. Haggin was not so easily contented as some people—he was anxious to get on. What is more, he was restless, and when things were not moving at the pace that harmonised with his eager spirit he grew discontented, and wanted to bring about a speedy change. His friends regarded this restlessness as an unfortunate trait, and spoke warningly to him about rolling stones gathering no moss, and that kind of thing, but Mr. Haggin knew what he was doing; he was a little headstrong and impetuous, but when a locality was not advancing his interests sufficiently he thought it best to try some other place. He was young, and could afford to make experiments. Therefore when Natchez, in Missouri, failed to yield him as many clients as he considered himself entitled to, he quietly packed up his traps and moved off to New Orleans.

In the Sunny South.

In the metropolis of Louisiana Mr. Haggin found himself in a new world—among the picturesque remnants of the old French and the still older Spanish colonial life, with the addition of the busier element of the newer order of things represented by the planters, the negroes, and the more active business movements of the later American population. Mr. Haggin soon made himself at home in this very mixed community, and won both friends and clients. Having the power of adaptability strongly developed, he could pilot the case of a descendant of an old European noble as carefully through the shoals and quicksands of the law-courts as he could manage the prosecution of a negro law-breaker by one of his own race. Nothing came wrong to him, and he got into high favour and made money—not a great deal, perhaps, but sufficient to give him the hunger for more. Fortunes were not made rapidly in the South in those days, the people were too easy-going and thought too much of their pleasures. They would save up for the festivities of the Mardi Gras, but when the period of carnival was over and they had to return to their daily tasks, they were the reverse of lively and had little stomach for the law. The atmosphere doubtless induced lassitude and languor to a serious degree, but Mr. Haggin did not suffer from feelings of that kind, and could not understand why anybody else should. So although quite successful, as success is counted in the South, Mr. Haggin began after a while to grow weary of New Orleans and its people, and determined to try still another field of labour. It was not easy to decide where to pitch his tent next, however, for the United States is a vast country, and there are many cities to choose from. At first he inclined to New York, where the leading lawyers of the time always located themselves, but after fuller consideration it occurred to him that the West would be more likely than the East to provide him with opportunities for money-making.

Towards the Setting Sun.

There were many things to turn an ambitious and adventurous man's thoughts in the direction of the Western States at that particular time. The discoveries of gold and silver in California and Nevada, and of copper in Montana, and the opening up of the immense agricultural regions lying between the western side of the Rocky Mountains and the Pacific coast, were matters that were fresh in people's minds. The newspapers were full of glowing stories of the wealth of the Golden West. So, in the end, Mr. Haggin resolved upon changing the sultry South for the more active and more bracing West. This time he was fortunate beyond his expectations. From New Orleans he proceeded to San Francisco, and began the practice of the law at the Golden Gate. Again he showed his ready adaptability to circumstances. In the Californian chief city he had to look for clients among a very different kind of people from those he had worked among in Missouri or in Louisiana. The men of San Francisco were the men who had been successful at the mines, or in mining speculation—men of great business houses, merchants, controllers of great industries, storekeepers, hotel proprietors, and the like—and to act for and advise them was quite another matter from serving the Southerners. Mr. Haggin, however, found the people, the city, and the climate exactly suitable to him; and he managed in an extremely short space of time to make himself very popular in San Francisco. As a lawyer he was a considerable success, obtaining many rich clients, and getting into touch with numerous profitable enterprises. Then he entered upon a career of speculation, becoming interested in mining properties, land schemes, and various ventures of a miscellaneous kind, from one and another of which he managed to accumulate a considerable fortune in the course of a few years. The energy displayed by Mr. Haggin in that period of his successful handling of so many different enterprises in so many different places was marvellous.

"IN THE SWIM."

Everything he touched seemed to turn to gold; and all the time he was living his life like a man who was "in the swim," enjoying himself in healthy sports and pleasures, and spending and giving of his wealth freely. Like the true Kentuckian that he was, he had a strong love of horses, and when his means allowed of it set up a racing-stable and ran horses in the principal races, gaining a high reputation on the turf. At one time his racing stud was one of the largest in the country; and even now, when he has so many other important matters to occupy his mind and keeps but a comparatively small stable, his name often figures among those of winning owners. It is now many years since he practised his original profession, but his legal training has been of excellent service to him, enabling him calmly to measure and weigh the chances of success or failure in projects that have been submitted to him. In these days Mr. Haggin is a mighty landowner, his possessions in California and elsewhere being on a scale of magnitude that would make the holdings of our British nobles appear insignificant, vast as those are sometimes. His famous Rancho del Paso in California is one of the largest and most successful breeding establishments in the world. It forms one of the great sights of the Far West, and in point of extent, equipment, and efficiency of management is unequalled on the entire continent of America. The good service Mr. Haggin has done in this direction entitles him to great praise; for, quite apart from the question of profit, he has maintained the ranch in full usefulness through all seasons. In the great vineyard and orange regions of Middle and Southern California Mr. Haggin for many years did splendid pioneer work. It was largely due to his efforts that the Kern County Land Company was established and successfully worked. This company, which owns some four hundred thousand acres of rich vine and fruit lands, has attracted settlers from all parts of the world, many English families living and becoming prosperous out in that lovely region of eternal summer. The land was laid out in suitable lots and offered to settlers on easy terms of payment, and for the first few years of occupancy the company practically cultivated the ground, providing everything necessary for the start, and helping in all possible ways to promote not only the prosperity of the general scheme but of individual settlers. Under such a system success was bound to follow. Thousands upon thousands of dollars were invested in irrigation, which practically made the cultivators of the soil independent of nature's showers, which are less bountifully supplied in California than in more Eastern districts. Under this system lands that would otherwise have been dry and comparatively barren have become rich and fertile, yielding the fruits and cereals of the temperate zone as well as those of the tropics. The part that Mr. Haggin has played in the development of farming, fruit and wine growing, and horse and cattle breeding in California has been very conspicuous, and few will grudge him the large measure of wealth that his far-spreading and well-managed operations have produced him.

A Few Luxuries.

Mr. Haggin's position among the multi-millionaires of America is almost unique. Without being ostentatious, Mr. Haggin feels the responsibility and power of his riches, and lives as becomes a man of refined tastes and generous spirit. When he travels by rail he has his own luxurious private car, "Salvator," which is of regal proportions and beauty—a veritable palace on wheels, comprising state-room, observation-room, dining-room, bath-room, and so on, all most elegantly fitted. When he travels by sea he has at command a magnificent private steam yacht, such as only a millionaire could afford to build and maintain. In New York he is one of the most open-handed and liberal of entertainers, and takes a lively interest in the social events of the day, while out in his little kingdom of a ranch in California he is able to realise every possible enjoyment that a country existence in a lovely climate, and the command of boundless means, can yield him.

WILLIAM COLLINS WHITNEY

TRACTION MAGNATE AND POLITICIAN

William Collins Whitney, the prominent traction magnate and millionaire of New York, has practically been a man of three careers. Almost any career was open to him from the outset; well-born, well-educated, and moving in the best society from the first, he was in a position to command almost any avenue of public life that he pleased in which to exercise his great natural abilities. He began as a lawyer, and made splendid headway in that capacity in New York, gaining for himself a host of friends and clients, and enjoying much more distinction than usually falls to the lot of a young lawyer, no matter how promising his start may be. For a considerable period he filled the office of Corporation Counsel to New York city. Politics attracted his attention early on, and he was not long in discovering that in this particular field it was likely he would be able to earn even more distinction than in the law, and being a man of means, and therefore not compelled to look to a profession for an income, he was most favourably situated for carrying out any ambitious project that he might entertain in regard to obtaining political fame. He has been all along what Mr. Theodore Roosevelt would call a strenuous man, for he never entered upon any kind of work into which he did not throw his whole heart and soul. He has proved himself to be one of the most typical of Americans in the force and energy of character which he has displayed in his many enterprises.

A STRENUOUS POLITICIAN

In abandoning the law as a profession Mr. Whitney put himself in touch with the leaders of a movement intended to curb the power of Tammany Hall in New York city. Mr. Whitney was one of the prime framers of the great organisation which came to be known as the County Democracy, and had the sympathy and support of such men as Samuel J. Tilden, Abram S. Hewitt, Edward Cooper, and others, and there is no doubt it was to his active and determined endeavours that the success of the organisation was largely due. This political body, formed for the suppression of what has proved to be the iniquitous domination of the municipal force of a great city, provided Mr. Whitney with an opportunity such as suited his powers. It gave him something to fight for, and something to fight against. It was the County Democracy programme that formed the medium through which his political fighting qualities were first made known, and won him the recognition of the political leaders of his party, and the respect and fear of his political foes. He did not come forward with the loud mouthings of the vulgar demagogue, but appealed to reasonable men with reasonable arguments, strongly put and emphatically supported. In fact he was a convincing speaker, with a rare command of effective speech, and was at all times forceful and aggressive. He was always ready to obey the call of his party when its interests were at stake, and could invariably be relied upon to do manly battle for his cause. In this way he soon became a political power in New York, and gained the trust and confidence of the public.

A STEP UP THE POLITICAL LADDER.

It seemed, therefore, the most natural thing in the world that, when he had succeeded so well in championing the Democratic cause in its more solid and purer aspect as against the self-seeking and corruptibility of Democracy as represented by the Tammanyites, he should, when his party got into power again, receive some sort of reward; therefore, when Grover Cleveland was elected President of the United States in 1885, it was not surprising to the country to find that Mr. Whitney was offered an important appointment in the Cleveland Cabinet. Mr. Cleveland asked Mr. Whitney to accept the position of Secretary of the Navy, and after some hesitation on Mr. Whitney's part he ultimately yielded and took the post, but more as an act of duty than for the purpose of gratifying his personal ambition. When once Mr. Whitney found himself a member of the Government, however, he threw every other consideration aside, and devoted himself with characteristic vigour and intelligence to the fulfilment of the duties of his onerous office. He made one of the best Naval Secretaries that the United States has had in modern times. He came into the position at a time when naval developments were highly necessary, and under his administration the American fleet was rehabilitated and put in the way of attaining the point of efficiency which a few years later enabled it to crush the power of Spain on the sea most completely, and with the expenditure of but a comparatively small effort. It has been generally acknowledged that Mr. Whitney was really the founder of the American navy as it now stands, his successors having done little more than follow out the plans laid down by him, and complete the edifice according to his designs. During the four years of the first Cleveland term Mr. Whitney was indeed one of the most conspicuous members of the Government, and was regarded by the public, and especially by his own party, as a sincere, earnest, and capable politician to whom every possible honour might be looked for, and indeed Mr. Whitney might have obtained almost any political position that a man could have desired, but unfortunately his ambitions in that direction have not been sufficiently great to carry him to the eminence which otherwise might easily have been his.

THE PARTING OF THE WAYS.

When Mr. Cleveland became President for the second time, in 1893, Mr. Whitney was pressed to take a place in his Cabinet, the choice of the position being practically left to himself, so high was the President's confidence in his ability and public spirit. Mr. Whitney had fought hard to secure the victory for Mr. Cleveland, and much of the success of the Clevelandites in carrying their man into office through tremendous opposition was due to Mr. Whitney's personal action. The organised Democracy of New York had opposed Mr. Cleveland's nomination and presented the name of David B. Hill as its candidate, choosing the delegation with that view which attended the Chicago Convention at which the nomination was to be decided. In opposition to this Mr. Whitney organised a strong body of Democrats, who repudiated the proceedings of the Hill section, and when the day of the fight came in the Convention Hall at Chicago, Mr. Whitney made a splendid speech and the Hill section were ignominiously defeated. From that time to the election day Mr. Whitney worked with all his power on Mr. Cleveland's behalf, and succeeded beyond the most sanguine hopes of those who counselled him and who waited with bated breath the results of his diplomacy. The triumph at the polls was such as to give greater strength than ever to Mr. Whitney's position with his party, and even the men who had fought against him were anxious to see him become a member of the Government which he had done so much to establish in power; but no amount of persuasion, either on the part of Mr. Cleveland or his party friends, could prevail upon Mr. Whitney to accept a Cabinet place. The fact was Mr. Whitney had become interested in a variety of financial enterprises and could not, in justice to these and to himself and those with whom he was associated, give himself up to the work of political office. Up to that time he was a man of distinct political promise, an acknowledged leader, and an undoubted political power in the country, and, as Mr. Cleveland had indicated, might have had any office that he cared to accept, but as things turned out Mr. Whitney's days of political leadership had come to an end. He was now committed to another career—the third career of his history—that of financier, in which he was destined to make one of the most conspicuous successes of his time; so Mr. Daniel S. Lamont went into the second Cleveland Cabinet in place of Mr. Whitney, and Mr. Whitney practically went out of politics altogether.

A Career of Finance.

This action on the part of Mr. Whitney was no sudden determination, but had been arrived at after due deliberation; it had in fact occupied his mind for some years before. He had almost resolved to retire from politics when he gave up the office of Secretary of the Navy, and devote himself entirely to private enterprises, and all his arrangements to that end were made when the split in the Democratic party in 1893 occurred and drew him once more into the vortex of political conflict. Since then he has confined his political appearances to times of stress and strain. When it became necessary for all who had an interest in the best welfare of the country to strike against the fallacious principles for which Mr. Bryan stood, Mr. Whitney emerged from his privacy and fought again with much of his old ardour in opposing those views. Good Democrat as he was, he could not stand calmly by and see his country forced into the dangers of financial repudiation without making a strong effort to help to save it.

One of the great secrets of Mr. Whitney's success in each of the three careers into which his life has been divided is the faculty of a clear, forcible exposition of his opinions. He never leaves his hearers in doubt as to what his meaning is, and he has the power of disentangling a knotty point that has often caused men to marvel. A man of large affairs, who knows Mr. Whitney well, not long ago referred to a particular occasion in which he was a prominent actor in the following terms:—"I sat a few days ago in consultation with a group of men over an intricate and vexed matter of moment in which all present had a direct interest, and dependent on which was a large investment. There was not a man present who was not accustomed to handling large affairs, but in this matter every one was apparently muddled by the confusing, inconsistent aspects the question presented. Nearly every one present took a hand in making a statement of the question with results of further tangling the matter. During this time Mr. Whitney sat at the lower end of the table silent, attentive, and thoughtful. When all had spoken and we were no further advanced than we had been two hours previously, indeed worse off, Mr. Whitney drew his chair to the table, and leaning his arms on it, began with the words:—'It seems to me the matter stands thus.' Then followed a statement, cool, deliberate, without the waste of a word, in the simplest language, every division delivered in its proper and logical place, so clear and so cogent that we nearly lost the sense of it in wondering what there was about so simple a question to vex us. Then he drew a resolution of a hundred words that directed our course, made our determination, and fixed our policy. He had made everything as clear as the noonday sun, and yet, when he entered the room he had little or no knowledge of the matter and had learned all from the blundering statements of the rest of us."

A Busy Man.

For the last dozen years or so Mr. Whitney has been occupied in many and vast enterprises of an industrial and financial character. He has perhaps fallen away somewhat in the esteem of his fellow-countrymen for having given up talents that were meant for mankind to his own material advancement. For many years now he has been in the possession of a degree of wealth that far exceeds the requirements of any man, and has thus lost touch with the nobler ideals for which in his earlier career he so valiantly fought. He might have become a statesman of the highest power, his abilities being such as would have enabled him to shine in that important sphere; but he has chosen the less admirable career of a money-maker, and although he uses his wealth in many respects nobly, is a man of large-heartedness and of great charity, still much more than this was expected of him; and the time may possibly come when, in looking back upon his successful career, he himself will appreciate more than he does to-day the feelings of those who look upon him as having deteriorated in nobility of character by the course he has latterly adopted. He is no longer one of the great political possibilities. But still there is nothing to be said against Mr Whitney's financial methods; they have not been those of the wrecker. He has been loyal to those who have been associated with him in various enterprises, and it has been said of him that he has been the means of putting more men into independent circumstances than perhaps any financier of his time. He is not a capitalist who wants everything for himself, but he is willing to share with his friends any good thing that may come under his notice and require the assistance of capital for its development. Opportunities come to him day by day, and much of his time is taken up in deciding upon the value of schemes that are submitted to him, but his instincts are so businesslike, and his insight is so keen, that he rarely commits any blunder in regard to speculations. When a man has arrived at a certain point of success in financial schemes—such a point as Mr. Whitney arrived at very early on in his speculative career—money-making becomes a very easy matter to him; undertakings of great moment are put before him requiring the employment of large sums of capital, and in the handling of such ventures Mr. Whitney brings to bear upon the projects a mind that is singularly free from prejudice, and reasonably free from self-seeking, and the result is the constant augmentation of his wealth. It is in the smaller enterprises of a prosperous community like that of the United States that risks and dangers abound; in the larger affairs, involving vast operations and a vast outlay, there is always a comfortable margin within which to lay one's plans successfully for the realisation of profit.

A Traction Magnate.

It would be quite impossible within the space at our command to attempt to describe a tithe of the undertakings for which Mr. Whitney has been mainly responsible. One of the most prominent enterprises, however, in which he has been concerned has been that of the New York street railway system, which he may be considered to have almost entirely built up in its present improved form. It was through his initiation that the old horse-car lines which threaded their way up and down the thoroughfares of the city, and the still more ancient omnibus lines which, prior to 1886, blocked and incommoded New York as such things block and incommode London to-day, were done away with. He saw that these modes of transit were impossible of much longer continuance. He also saw that there was such an opportunity of making wealth by the introduction of a better and more efficient system of street transit than was presented in almost any other direction, and he made up his mind that he would be in at the organisation of the necessary street traffic revolution. Again he displayed his wonderful tactfulness and ability, and again he thoroughly succeeded. He organised and controlled the company which put into operation on all the main thoroughfares of Manhatten Island, from the Battery on the south to Harlem and beyond on the north, a system of cable cars which practically removed every other kind of passenger vehicle except cabs from the streets. It was a wonderful transformation, and was quickly effected, for when Mr. Whitney takes a thing in hand there is no delay or dilatoriness about the carrying of it out; it has to be pushed along speedily and thoroughly. So Mr. Whitney created a cable system in the streets of New York, even taking possession of the leading thoroughfare of all—Broadway. Since then the cable system has been replaced by a splendid electrical system, and the question of rapid transit, as far as New York is concerned, has been more successfully solved than in any other city of the world, thanks mainly to Mr. Whitney's businesslike management. He was already a very rich man before this undertaking was entered upon, but to-day he has to be reckoned among the richest of the rich millionaires of whom the world talks so much in these days.

An Honourable Financier.

" Mr. Whitney is an outcome of the modern conditions of finance and commerce," says one who knows him well, and who makes a very acceptable contribution to " Studies in American Character." " We no longer see," says this testifier, " the individual working out his end alone. Ends are now attained by groups of men, often contending against other groups of men. Mr. Whitney is the leader of a very powerful group who are building up and extending great capitalistic formations. It used to be said of the great money kings—Jay Gould, for instance—that they were selfish, that they used a man so long only as he was fruitful and then cast him away. If that were true of individuals, it is much more likely to be true of groups of capitalists. Yet to my own knowledge I know it is not true of Mr. Whitney. He is a kind man, of generous impulses and warm heart, serving loyally those who have served him. Now, a man situated as Whitney is has brought to him constantly schemes of investments for development of which his capital is required. I have observed that when such a proposition commends itself and is taken up by him, that he divides his opportunity with a great many people who have served him in the past, when he might have selfishly taken it all to himself, to the augmentation of his wealth. This credit is due him ; he has made more men independent in circumstances, even wealthy, than anybody I have ever known. And it is not a pose of his either. He likes to do it, and in doing it gratifies his own kindly nature. As a result he has an army of friends, not alone made up of those he has benefited and aided, but among those who do not need his aid or assistance, yet know his disposition. The result is that the other day, when he got a set-back in the street and it was rumoured that he was far more badly hurt than in fact he really was, he had a rush of proffers tending to him the use of an enormous capital, inspired only in friendship and a desire not to see that sort of man go down." From the same source this further evidence is afforded: "I am fairly well acquainted with the methods of the Whitney group of capitalists, and know I am right in saying that they have made their wealth while developing and increasing the wealth of the country—in developing resources by which thousands have benefited, especially in the matter of wages. I am not of his clique; have nothing to do with his group; in fact, in a way and degree I am a rival of Whitney's; but I do think that he is the type of an American citizen and a capitalist of whom Americans, no matter what their degree, may be justly proud."

PROUD POSSESSIONS.

It will now not be out of place perhaps to attempt to give some notion of what Mr. Whitney is as a man of wealth—how he uses his wealth, and what he gets out of it. He certainly does not spare expense in gratifying his tastes. He may be said to live not only a luxurious, but perhaps an ostentatious mode of life. But as we have seen, he is a man of humane and generous feelings and makes many people sharers of his wealth. Among his many possessions may be counted a vast and romantic tract of forest in the Adirondacks, comprising no less than thirty-three thousand seven hundred and forty-four acres, composing a whole township in Hamilton County with the exception of one lot. It is a mountainous region of forest land, containing numerous lakes, and offering sporting facilities of a very extensive and varied character. Within its beautiful confines at the north end is one of the Fish Creek Ponds; in the centre there is the Upper Saranac Lake; at the east there is the Middle Saranac Lake; and at the south the Stony Creek Pond, all of which abound in fish and offer splendid sport to anglers. On the west shore of the Upper Saranac Lake is the village of Wawbeek, which Mr. Whitney incidentally bought as another man might buy a pair of gloves. The Northern Adirondack Railway is easily reached from this great game preserve, so that it is fairly accessible for Mr. Whitney and his friends when they desire to go hunting elk and buffalo. Mr. Whitney has stated his intention of keeping on stocking this immense preserve with big game such as moose, elk, and buffalo, as well as with pheasants, grouse, partridges, and so on. A splendid country residence is in course of erection at Wawbeek, where Mr. Whitney will be able to offer hospitality to his friends from time to time.

Many Estates and Mansions.

Mr. Whitney owns many other large estates, including one on Washington Mountain in the Berkshire Hills, two and a-half miles from Lennox, comprising nine thousand acres, upon which he has invested some forty thousand pounds in lands, horses, improvements, preserves, and stock of game. It was upon this estate that the Antler Cottage was built for the occupation of Mr. and Mrs. Harry Payne Whitney during their honeymoon. The idea of this pretty cottage was suddenly conceived by Mr. Whitney, and suddenly executed. No one had the slightest clue to his intentions when he first purchased the land, but in a few days he had three hundred men on the spot, and they worked night and day for three weeks, at the end of which time the building was practically completed. Mr. Whitney's estates are so numerous and so different in location that it has been said he can defy the seasons. In autumn he is able to occupy his lovely house in the Berkshires; in the summer he has the choice between his mountain and lake retreat in the Adirondacks, or his luxurious cottage at Newport ; in the spring he can betake himself to his extensive and lively home at Wheatley Hills on Long Island, with its far-spreading parks, its gorgeous lawns, its productive gardens, and its private race-track and wonderful stables ; and in the winter he can retire to another home of his at Aiken in South Carolina, where, amidst some of the most wonderful scenery of the southern mountain ranges, he can occupy his great house there and enjoy the wonderful climate of the South, all through a period when New York is shivering with cold and practically frost-bound. His southern home is built in the old colonial style, and has a wide sweeping piazza of one hundred and seventy-five feet, and a grand reception-hall containing an immense old fireplace. In this magnificent retreat among the mountains he often goes for a few weeks in the severest period of the winter time, taking with him numerous friends to enjoy his princely hospitality.

A Palace in New York.

Mr. Whitney's mansion on Fifth Avenue in New York is one of the most gorgeous and magnificent residences in all America. It is situated at the corner of Fifth Avenue and Sixty-eighth Street, and contains perhaps a larger number of costly treasures than any other house in New York. Externally the house will not rank with some of the older residences in New York, such as those of the Vanderbilts, the Astors, and the Goulds, for although it is of enormous proportions it is rather gloomy and plain in character, its walls being of brown stone. On the Sixty-eighth Street side of it, it is supplemented by a ballroom, which is said to be the most brilliant, as it is certainly the largest, in the city. The house is approached through massive wrought-iron gates, flanked on each side by plants of bounteous foliage. The walls of the entrance hall are of white marble, with columns of dark green, while the floor is entirely composed of tessellated marble laid in bold artistic designs. The ground floor comprises the offices of the mansion and a gorgeous Marie Antoinette reception-room, the walls and ceiling of which are decorated in white and gold ; while the furniture and draperies are of blue brocade and gold, and were brought direct from France and cost ten thousand pounds. In keeping with the general scheme of the decorations of this apartment, the walls contain portraits of Marie Theresa and her children, done by celebrated European artists. The staircase is of noble and massive proportions, the balustrade of which is of white marble carved in imitation of the famous staircase in the Doge's Palace at Venice. The carving alone occupied a number of skilled workmen, whom Mr. Whitney brought over from Italy, over six months to execute. The great hall, which occupies the centre of the house on the first floor—they call it the second floor in America, their first floor being what in England we style the ground floor—is also of marble, and contains lovely windows of antique glass, with electric lights concealed behind, giving the effect of sunlight constantly streaming through them. Opposite the windows hang a series of beautiful Gobelin tapestries illustrating the story of the " Gathering of the Gods," and in other spaces are smaller Italian tapestries, representing altogether a very unique collection. There is a marble fireplace in the hall, of immense proportions, designed in the Renaissance style. At the head of the staircase, on the right from the entrance hall, hangs a life-sized picture of Charles I. by Van Dyck, which, it is said, was the gift of the king to Lord Byron of Newstead Abbey, an ancestor of the poet. For the tapestries alone Mr. Whitney is said to have paid two hundred thousand pounds. The ballroom carries us back to the time of Louis XIV., and the gorgeous scenes and assemblies and pastimes of that luxurious monarch, who was so absorbed in his pleasures that he did not see the shadow that was spreading over France and threatening to overwhelm his dynasty. The collection is of a most elaborate character, rich, gorgeous, harmonious. The walls are hung with beautiful tapestries worth a fortune, between which are panels of oak and gilt. The rooms are in fact an adaptation of a salon that was built by Phœbus d'Albert, a Marshal of France, in the days of Louis XIV. It was transported in sections from an old ancestral castle in Bordeaux, and in the time of Louis Philippe formed a chamber of a great house in the Faubourg St. Honoré. The windows are of antique stained glass, the hangings of red and gold, and the floor is of inlaid oak. There is an immense fireplace bordered by gorgeous and elaborate carvings, and above hangs a painting by Sir Joshua Reynolds which cost Mr. Whitney about nine thousand pounds. The drawing-room is even more beautiful than any of the other apartments; the walls are covered with hangings of Florentine embroidery in rich hues, while the ceiling is considered a masterpiece of Bardini, of allegorical design, but beautifully treated. Facing the main entrance of the drawing-room is John Hoppner's painting, "The Dancing Girl." The bathroom is built of the finest Carrara marble, relieved by onyx and other precious stones. The bath is cut from one solid block, and the floor is composed of rare mosaics. The bath-taps and other metal-work are made in pure gold.

Mr. William Collins Whitney, from whichever point of view he is regarded, is one of the most remarkable of the citizens of the great Republic, and when his achievements come to be finally summed up and measured by their beneficial influence upon the country, it will be found that his record is one that will, in its main features, redound not only to the credit of the man, but to the honour and fame of America.

GEORGE C. BOLDT

THE KING OF HOTEL-KEEPERS

George C. Boldt is of German extraction, and began his hotel career in the United States on very humble lines, rising from one stage to another, until he at last achieved a managerial position. Philadelphia was for some time the city of his choice, and it was in the Quaker City that he gathered a good deal of his experience. There is not a round of the hotel ladder with which Mr. Boldt has not been familiar, and it is to his wonderfully varied experience and his exceptional genius for catering that he owes his marvellous success. To arrive at the distinction of being the greatest of hotel managers in a country so renowned for its hotels as America is an achievement to be proud of, and it is probable that, to attain that position, it has been necessary to have an equipment of intelligence and practical ability that would have insured eminence in almost any other career.

When the Astors decided to expend a goodly portion of their surplus revenue in the erection of a hotel on Fifth Avenue, New York, which should surpass in internal grandeur as well as in magnitude any other hotel in the world, they little imagined what a fine investment they were going in for. In fact, they hardly thought of revenue at all. What they mainly concerned themselves with was the erection of an edifice that should be of surpassing magnificence—a palace of marble halls in which kings and queens might be fitly entertained. Of course, American millionaires were thought of chiefly in this connection, for many of them can afford to spend as freely upon the luxuries of entertainment as any monarch. So the architects and the builders were given a free hand, and they certainly produced between them what proved to be, when finished, the handsomest and most costly hotel structure the world had ever seen. Then came the questions, Who is to be the tenant of this mighty palace? Who is capable of managing so huge an enterprise? Many people predicted that the Waldorf was too large for the management of any one man, but when these prophets learned that Mr. George C. Boldt had accepted the responsibility of the position, and when they saw the hotel opened with great society acclaim and found that New Yorkers were being catered for in a manner never before equalled, they were loud in their praises of the man who had accomplished so much, and, moreover, seemed to do it so easily.

Mr. Boldt not only managed this great hotel capably, but he actually made it pay—that was the wonder of it. So excellently did it do, indeed, that another twin hotel was ultimately erected by the side of it—the Astoria—on a still more magnificent scale than the Waldorf; with grander apartments, greater luxury, richer decorations, nobler marbles. And then, when the two immense hotels were thrown into one, and became known as the Waldorf-Astoria, and when still George C. Boldt was found to be managing the two mammoth establishments as nimbly, cleverly, and successfully as he had formerly managed his old and comparatively small hotel at Philadelphia, which he still retains, the New Yorkers lavished encomiums upon him more and more and patronised him more and more.

The actual cost of the Waldorf-Astoria, admittedly the largest and most luxurious hotel in the world, has never been disclosed to the public, but it is estimated to have cost nearly £3,000,000. It contains forty magnificent public rooms, more than 1300 guests' rooms, and affords accommodation for between 1400 and 1500 people, being practically filled all the time. There are people living in the Waldorf-Astoria who pay £20 a day for their rooms the year round. For the famous royal suite £100 a day has been paid on several occasions. Mr. William C. Whitney not long ago went to live at the Waldorf-Astoria and also established a private office there. Nearly the entire royal suite was given up to the luxurious entertainment of the multi-millionaire. Mr. Boldt speedily adapted the suite to Mr. Whitney's requirements, for there is nothing more royal in the eyes of Mr. Boldt than an American man of millions. Mr. Whitney was completely isolated from the rest of the hotel, the suite having a private hall of its own. He had his meals served in the royal private dining-room, received his guests in the royal private drawing-room, and lived *en prince* altogether. It is estimated that his bills at the Waldorf-Astoria for the year would amount to not less than £14,000. Mr John C. Eno lives there in an almost equal style of royal grandeur. The prices for a parlour, two bedrooms, and bath, at the Waldorf-Astoria run as high as £7 to £8 a day ordinarily. £10 a day is the charge for bridal suite. Mr. Tom L. Johnson, Mr. Elkins, Mr. James J. Hill, and other millionaires retain luxurious rooms in Mr. Boldt's splendid palace, the furnishing of which cost over a million dollars. A hundred and thirty people are employed in the kitchen, and the catering department as a whole employs 730 persons. On an average 6000 meals a day are served, and it is no uncommon occurrence for a man with four or five guests to have a £15 dinner in any of the dozen or more public dining-rooms. Over £50,000 worth of wine and £60,000 worth of cigars are stored in the cellars, the permanent value of the stock amounting to over £200,000. The Waldorf-Astoria ball-room, the rental price of which runs as high as £100 a night, is one of the most magnificent rooms in the world, and forms one of the "sights" of New York city. The chef of this mighty hotel receives a salary of £2000 a year.

Mr. George C. Boldt is the king of this realm of luxury, and his rule is that of an absolute monarch, yet he is the gentlest of despots. Nothing but the best and most efficient service will satisfy him, but when he gets that he is the most considerate of masters. Courteous he is always, and the guests regard him with positive affection, he serves them so splendidly in every way. He has a keen appreciation of what is beautiful and luxurious, being a man of high artistic taste. Indeed his realisations have been artistic in everything he has touched, most of the beautiful decorative displays at the Waldorf-Astoria being carried out under his special superintendence and according to his designs. His own apartments in the hotel are wonderfully fine. Mrs. Boldt's drawing-room is in the Louis XVI. style. The central chandelier is a marvel of crystal drops, and was presented to Mrs. Boldt by Mrs. Astor. Not only have the Boldts sumptuous quarters at the hotel in New York, but their country place at Thousand Islands, to which Mr. Boldt is, unfortunately, only able to retire very occasionally, is one of the loveliest in America. Mr. Boldt is, however, one of the busiest men in the country, and even now he is thirsting for fresh hotel conquests, having projected a new £600,000 hotel in Philadelphia; and, it is now and then mysteriously hinted, he has set his eyes upon a site in London, upon which one of these days there is to rise an English Waldorf-Astoria. In 1900 a profit of £160,000 resulted from Mr. Boldt's Waldorf-Astoria enterprise alone.

CHARLES FLETCHER

THE TEXTILE KING

SOME forty years ago there lived in the village of Thornton, near Bradford, a young working-man named Charles Fletcher, to whom life did not seem to hold out many bright prospects. He had been born in a very humble sphere, his parents being hard-working factory people, and his education was, to say the least, somewhat scant. Thornton did not offer much in the way of employment either, the main trade carried on there being the worsted manufacture in connection with Bradford, four miles distant. There was only one factory at Thornton of any importance at that time, and that was owned and worked by Messrs. J. & J. Craven, who may be said to have practically "run" the village. If a boy could manage to get employment with the Cravens it was considered well; if not, he had to go farther afield—probably to Bradford. Charles Fletcher, however, was lucky enough to get a small position in the spinning department of the Craven Works when he was old enough to go to work, and was much elated at being able to add the few shillings a week that he earned to the family exchequer.

Young Fletcher soon discovered that there would not be much more for him to look forward to in Thornton than the lot of an ordinary factory operative, and he began to grow restless. It might be possible for him perhaps to reach the position of an overlooker by the time he became a man of five or six and twenty—that is, if he happened to be lucky—but beyond that there would probably have been little for him to attain. Managerial positions ran in families mostly, and were distributed among the nearest of kin so long as ability would hold out in those inner circles. So Charles Fletcher began to educate himself in his spare time, and had serious thoughts of one day taking the bold step of migrating to Bradford and trying to get a footing in the metropolis of the worsted district itself. He read much and studied much. It was at Thornton that Charlotte Brontë had been born; and, of course, he read the Brontë novels, and they seemed to inspire him with new longings—longings which did not for a while take any definite shape, but which served nevertheless to lift his thoughts out of his immediate surroundings. Meanwhile, he read other books, and as the years passed on his ideas were so expanded that he made up his mind to leave Thornton. But where was he to go? That was one question that he asked himself. What would he do in another place? That was still another query that arose in his mind.

Then, as so commonly happens, an accidental circumstance diverted his thoughts into quite another channel from that in which they had been working. A companion of his received a letter from some relatives who years before had gone out to America, and the picture this letter drew of the better and more prosperous life they were leading in Massachusetts from that which had previously been their lot in England, fired young Fletcher with an intense desire to go out to the United States. From that day he thought of little else, and began to save money. It took him some time to get together sufficient for his passage across the ocean, for when only stray shillings can be put by the augmentation to pounds seems a slow process. In the end, however, he and his friend had enough for their purpose, and away they went, crossing by the steerage of a cheap boat, to the land of promise on the other side of the Atlantic.

They made their way without delay to Providence, Rhode Island, where their friends were living, landing with little money but plenty of health and spirits. They did not tumble into work all at once, however, for the worsted manufacture was not over prosperous just then in Providence, and that was the only kind of business they knew anything about. After hanging about for some time there was a vacancy at one of the factories for a night watchman, and Charles Fletcher applied for and obtained the situation.

This was not exactly the sort of thing he had been dreaming about on his way over, nor was it calculated to satisfy his ambition ; still, he soon discovered that in America those who got on the best were those who were least fastidious in regard to their occupations. Therefore, he went his nightly rounds among the looms and spindles with a good heart, made himself agreeable to the workers with whom he came in contact, and began to evince a keener interest in machinery than he had ever done in the old country in the mills at Thornton. Those were times when in the textile processes much of America's machinery was obtained from England, and occasionally he found that the men engaged in fitting up the machines got into difficulties from which he was sometimes able to extricate them. When new looms or spinning frames were being erected the men worked far into the night as well as during the day. Thus it was that the opportunity came to young Fletcher of interesting himself for the first time in his life in mechanical matters. It was seen, too, that he had some ability for this kind of thing, for once or twice he made rough suggestions of improvements that were adopted and were found to work well. The result was that after a brief spell of watchman duty he was promoted to day employment in the factory.

From that time everything that he undertook seemed to work out in his favour. He invented a labour-saving contrivance in connection with worsted looms that was of great utility. He patented it, and became a person of consequence. From his patent rights he made good money, and presently he was able to talk to the firm by which he was employed about a partnership. So he went on gaining one advantage after another, and in time was able to set up as a manufacturer on his own account at Providence. He became ultimately one of the largest employers of labour in the city, and conducted his enterprises with such skill and energy that it was not long before he was a rich capitalist. From that day to this his career has been one of almost unbroken prosperity. Factory after factory was added to his properties, until he rose to the chief position in the city of his adoption. Then came the period of the larger operations associated with the formation of an immense combination of factories, under the style of the Charles Fletcher Corporation, of which Mr. Fletcher became the president. Those works constitute at the present time the most complete of their kind in the country. Mr. Fletcher is a man of large fortune, with many interests besides those of his factories. He built, amongst other things, the splendid Narrangansett Hotel, in which neighbourhood he owns a good deal of property. When he crosses the ocean nowadays—as he frequently does—he no longer occupies a humble steerage berth, but travels with the luxury befitting a man of large possessions.

J. R. DE LAMAR

A MILLIONAIRE OF ADVENTURE

In J. R. de Lamar, the eminent mine-owner and reveller in rich stores of gold and silver and copper, we have an exceptional man, who has had an exceptional career. In looking back upon the many adventures he has passed through, it must surely be a marvel to him sometimes that he has lived through them. He is a man past the period of middle-age, and has for twenty years or more been in a position of affluence, but the life that was his in the twenty years prior to his striking riches was so diversified, so full of light and shade, so surrounded with risk and danger, that he can never remove himself wholly aside from their influence.

Of French parentage, and early experience in England, he was thrown into a whirl of adventure almost from the outset of his career. There was no one to help him in the world when he was a boy. He had lost his parents, and was compelled to live with relatives who did not treat him very well, and with whom he had no sort of sympathy. It was not surprising, therefore, that he should have taken to the sea. It seemed to be his only refuge. How many voyages he made, or over what particular seas, does not much matter; suffice it that he one day found himself on a lonely island in the Pacific, the sole survivor of a considerable crew. It was not a desert island, so that he had not the opportunity of becoming a second Robinson Crusoe. The place was inhabited by a race of semi-savages, who were not disposed to regard him very favourably at first, but who ultimately, in return for sundry services he rendered them, gave him freely of such trifles as their stores consisted of, and when one day an American ship put in at the little harbour he bade them an affectionate farewell, and sailed away towards the United States.

So far, he had not counted himself more than an ordinary sailor, but somehow, when he got on board the American ship and found himself in company with American citizens, who talked freely upon matters that were altogether new to him, he began to have higher ideas than mere sailorship. What interested him most in the conversation of his new comrades was the pictures they drew of the fortune-hunters at that time engaged in searching for gold in California. They were full of it. He had scarcely heard of it before, for as yet his thoughts had been too much taken up with the common problem of existence to run in the direction of fortune-winning. But the events that had happened to him had inspired him with the spirit of adventure, and he was ready for any undertaking, no matter how wild or reckless, if he could get any one to join him. The ship was bound for San Francisco as its first port of call, though not its ultimate destination, and long before it had dipped its prow into the waters of the Golden Gate he had made up his mind to try his luck in the Californian mining camps.

Three or four other men left the vessel at the same time as Mr. de Lamar, and they all set out together towards the Sierra Nevadas, but only Mr. de Lamar and another lasted out the whole distance. The others fell by the way from various reasons, and when De Lamar and his companion, Edwards, landed in the Red Gulch, to which they had been directed, they were utterly destitute of means, and had to take employment as miners at a few dollars a day. The work was hard, the company he found himself in was disreputable and cruel, and the prospect generally was the reverse of good. Still, he "pegged away" determinedly, holding his own in the rough camp fairly well, for he was a man of courage, and would not suffer himself to be trampled upon with impunity. Presently he began to prospect, and located a claim or two, but not one of them gave him any sort of profitable yield ; so in the end he relinquished all idea of making himself suddenly rich by gold-mining, and made his way back to the coast.

At San Francisco he went back to his old calling, and accepted service before the mast again, this time joining a vessel that was bound for Buenos Ayres. For a time he was in a disheartened mood. The romance of life appeared to have left him, and so matters went on until the ship reached the capital of the Argentine, when going ashore he made the acquaintance of the French Consul there, with whom he struck up an immediate friendship. The Consul was interested in some Brazilian diamond scheme, but his duties did not permit of his taking the part in it that he would otherwise have done, besides the mines were too far distant. He therefore made an offer to De Lamar, by which he undertook to provide him with funds necessary for the journey to the mines, and written authority to act for him. So when the *Columbus* sailed away from Buenos Ayres De Lamar was already on his way to Brazil.

He arrived after a long and arduous trip, and soon found himself working with a strange band of miners trying to find diamonds. This experience lasted for about half a year, and resulted in much better profit than the Californian gold mines had yielded him ; still De Lamar was not satisfied, and after reporting himself to the Consul at Buenos Ayres and "settling up" with him, he ventured out once more into the world.

The following year or two he was at sea again, and made his next halt at Cape Town. There he got into association with some railway people, and obtained so much valuable experience that he was eventually able to take up an engineer's position on another railway. This was before the South African diamond "boom," or doubtless he would have become one of the Barnato band. There was talk of diamonds away in the interior, and he proceeded to Kimberley, then an insignificant hamlet, and with the knowledge he had gained in Brazil imagined he might possibly score some advantage, but the time for the South African diamonds had not yet come, so in a while he packed up and made his way back to Cape Town, and within a few months he was back again in America, a fresh gold craze having set in and caught him.

Going westward once more, he tried his fortune in Montana, and this time had luck. He made one good "strike" after another, and soon became the owner of several valuable properties. By nature, however, he was a wanderer, and presently realising his holdings in Montana, went to California again, and engaged successfully in certain trading ventures. Then he was seized with an impulse to proceed to Mexico, and was next heard of as being successfully engaged in mining for the precious minerals in that country. He did better even than he had done in Montana, and in time grew to be a great capitalist, after which he became a daring investor in mining properties all over the Western lands bordering on the Pacific, and from these and his Mexican mines has since extracted many millions' worth of the precious ores. At present Mr. de Lamar resides mostly in New York, having a beautiful mansion there, but he is too restless of disposition to remain long in one place, so flits about from East to West and West to East as the humour impels, and is a very prince of good fellows.

H. M'K. TWOMBLY

A GREAT INVESTOR

Few names loom so large in the select society of New York as those of the Twomblys. It is now long since Mr. M'Kay Twombly, by effecting an alliance with the Vanderbilt family—Mrs. Twombly is a daughter of the late William Henry Vanderbilt—worked himself into line with the Vanderbilt financial operations. Before that event happened, Mr. Twombly had given an excellent account of himself by his clever work in aid of the various railway schemes which the Vanderbilts had under their control, or were seeking to gain control of, and his own family connections were sufficient to make good his claim at least to equality of birth with the old Dutch family, the foundations of whose enormous wealth were laid by the "Commodore."

Mr. H. M'Kay Twombly has not been a great speculator in the sense in which speculation is worked in these days. He was never one of the great Wall Street operators, but as his money came to him he invested wisely and well in the enterprises which bore the backing of the Vanderbilt name and influence, and, with no very great trouble to himself after the earlier difficulties were mastered, acquired riches amounting to affluence. In his career he seems to have afforded one of the best examples of cautious investment that could have been adopted. His name has not been associated with any desperate trading or heavy risks; he has weighed well as he has gone along, and has been able to resist the temptation of plunging into things that he could not see to the bottom. In fact, he has had a serene sort of existence all through, and now he and his family enjoy all the delights that wealth can give to persons to whom society has a definite meaning and can yield a special pleasure. In the gay life of the summer days at Newport the Twomblys are always to the front; at the receptions and other great gatherings of the élite in New York in the winter they figure conspicuously; and at their fine and commanding country mansion, "Florham," the art of entertaining is most successfully carried out during the proper season. On a recent occasion when Mr. and Mrs. M'K. Twombly gave a dance at "Florham" there was a splendid display of character costumes. Mrs. Twombly herself appeared as Marie Antoinette, wearing all the jewels which she purchased at the sale of the effects of Queen Hortense, the mother of Napoleon III. and the daughter of the Empress Josephine, thus, as it were, contrasting the Imperial and Legitimist causes. It is only fitting, however, that those who have achieved fortune in what now may almost be called old-fashioned ways, should occupy the chief places among the social grandeurs. If there be an aristocracy in America, assuredly the Twomblys are of it, and give distinction to it. Their many social functions are always in good taste; there is the evidence of wealth there but no glaring ostentation, and those who are permitted to come within the charmed circle receive a sort of society imprimatur which means something. Money can accomplish many things in America, but money alone is not a sufficient passport to the good graces of the Twomblys. Mr. Twombly is a man of refined instincts and artistic tastes, and has done much to promote the various worthy movements which, in recent years, have been set on foot for the advancement of art. He invariably comes forward in support of the opera season, and can always be relied upon to give the best music the patronage that it deserves. Always a hard worker, he lives a methodical life, setting apart a specified portion of each day for the transaction of business, into which he enters with as much zest as ever. It is surprising that, with his many financial connections, requiring constant application and consideration, he should be able to find the time that he does for social relaxation, but long and efficient training in business methods has taught him the art of economising his time, so that no matter how many engagements he accepts he will never be found with an obligation unfulfilled. He is a man of many charities and universally respected. Belonging to the old school of capitalists rather than to the new, he is still able to take advantage of any promising financial current that may set in in his direction, but he does not go out of his way to seek them out, nor is he to be drawn into any scheme whatever that his own better judgment does not commend to him.

AUSTIN CORBIN AND ADRIAN ISELIN

TWO GREAT FINANCIERS

In these two names we have the representation of the olden style of financial methods of New York City. Mr. Austin Corbin is a man who has enjoyed great public regard and has made many dispositions to charitable objects. In the leading clubs of the city he was for many years a prominent though modest figure, and was highly esteemed as an honourable, public-spirited man whose great object in life was to do good to his fellow-creatures. His financial business was of that high-class and select character which brought him into contact with many of the most notable American citizens, and whenever a movement was on foot for bettering the condition of the people or for helping forward any real philanthropic object his purse and his services were alike to be relied on for aid. At one time Mr. Corbin made an extensive experiment, which cost him a fortune, in establishing a colony in the South for poor Italians. The project was entered into after long and careful consideration and under expert advice, and proved highly successful up to a certain point. It provided homes for many decent, hard-working Italians who were for the moment beaten down in the battle of life, furnished them with farming lands on which they were able to gain a living out of the products of the soil, and put them in a way gradually to earn their independence. It was a large-hearted scheme, combining a generous philanthropy with financial forethought, and although it did not, as years went by, yield all the results that its founder had hoped for, it was the means of initiating many deserving poor people into a better mode of life, and in that respect may be said to have been a splendid boon. That the members of the colony fell out among themselves and afterwards became scattered was the fault of human nature not of Mr. Corbin's scheme. Those who remained reaped the benefit.

Mr. Iselin's name will be remembered by the general public mainly because of its association with the inspiriting pastime of yachting, and particularly in connection with the Cup races, Mr. Iselin having been among the successful defenders of the Cup both with his own vessel and in conjunction with other members of the New York Yacht Club. Apart from this manly pastime, Mr. Iselin has not figured largely as a sportsman. In the business world, however, the Iselin name is one to conjure with. The Iselin financial concern is one of the oldest in New York, and has always been conducted on pure banking principles. The ebbs and flows of speculation in Wall Street are matters that the Iselins do not fear, for they are not of the class of financiers who take Wall Street risks. Mr. Adrian Iselin is noted for his appreciation of art, and his picture gallery is among the finest in the country. His house has been entrusted for many years with the accounts of some of the richest men in the country, and has a reputation parallel to that of some of the older London banks. Mr. Iselin is a generous contributor to the New York charities, and has been identified with many public movements, but neither he nor Mr. Austin Corbin ever allowed themselves to be drawn into the angry vortex of politics.

SOME WIZARDS OF WALL STREET

The wizards of Wall Street are a changeful brood. Although in the main they are the same from year to year, every now and then there is a rush of new blood to the scene, and a few new men appear with a few new financial tricks. The Goulds remain there, the Vanderbilts still accomplish a few big deals, Russell Sage keeps on the even tenor of his speculative way, James R. Keene continues to play his rôle of the King of the "Bears," "Silent" Smith pursues his quiet, unperturbed way and, towering above them all, J. Pierpont Morgan keeps on extending the list of his *coups* and combinations; but new conditions bring to the front new men, and those who can "cut in" and force the barriers of Wall Street and carry off big prizes are certainly entitled to be designated wizards. The gigantic trust and railway operations of the last few years have been the means of producing fresh conditions, which have enabled certain daring and clever men to enter the lists and participate in some of the triumphs.

One of the more prominent of these men is Edward H. Harriman, the new railway king, who has recently been performing wonders in Wall Street, making the older hands wonder what it all means. It was Mr. Harriman who, in conjunction with James J. Hill, a few months ago practically secured the control of the great Southern Pacific railway system.

A Business Genius.

Edward Harriman was undoubtedly born with business genius. His father was a New Jersey clergyman, and young Harriman was intended for his father's calling. But it was not to be. As soon as his schooling was over—about which, by the way, there was nothing at all striking—he gave his father distinctly to understand that he would be a man of business or nothing. "What sort of business?" asked his disappointed father. "Money-making," was the boy's answer. It is probable that at that time young Harriman had but the faintest idea of what money-making involved, but if he was ignorant on the subject then he did not long remain so, for as soon as he was free to take a course of his own he began to study the ways of Wall Street, and, having a lively imagination, he found a good deal of diversion in building financial schemes on paper, based on the speculations of the time, and often worked them out to a satisfactory conclusion before he had any money of his own to invest. At the same time he gave the closest possible study to the doings of the Wall Street magnates, observing for future guidance the causes, not only of their successes, but of their failures, for very early on in his career he had penetrated far enough into the secrets of stock speculation to know that it was even more important to know how to avoid failures than how to make a success.

First of all, Mr. Harriman bade good-bye to the parental home in New Jersey and betook himself to New York—to Wall Street. Most of our modern money-monarchs began their business careers in a more modest way—as clerks in stores, newsboys, bobbin-boys, farm hands, and the like—but Edward Harriman boldly settled himself in the very heart and centre of America's financial world, and in an office in Wall Street started the business of a broker. "Edward Harriman, banker and broker," such was the legend inscribed on the door. It was a daring thing to do for a man hardly out of his teens, and without friends or clients to back him. But it was characteristic of Mr. Harriman to be original in his methods.

EARLY SUCCESSES.

He had the ideal temperament for the Wall Street brokerage business. He could dream and scheme, and plan and plot in such a practical way that in time his dreaming took shape in reality, instead of collapsing like so many castles in the air, as was the experience of so many other young adventurers in Wall Street. It presently became manifest to a few observant capitalists that Edward H. Harriman was a man of an exceedingly clear judgment, and they gave him encouragement and business. Better than that, the youthful broker did so well for them that they increased their patronage, and soon Mr. Harriman was speculating for himself as well as for his clients, and, in the main, successfully for all. He became a thorough master of the art of stock speculation, and his returns of stock commissions yielded him a handsome income.

For some time he allowed this sort of business to content him; but as he witnessed the larger operations going on around him he began to harbour higher ambitions, and set his mind upon becoming a railway man. He saw that most capitalists, no matter how they had originally acquired their riches, contrived to secure large interests in the railways of the country, in many cases obtaining sway enough to place them in the position of being monopolists.

GREAT RAILWAY SCHEMES.

It has been said of Mr. Harriman that "he is not the burly, wilful banker, chest out, meeting all comers. He is not the bloodless soul of calm, fanatically crushing down all competition in the zealous quest for gold. He is secretive, saturnine, and peculiar. Few know where to find him; few see him who know where he is. He delights in the solitude of great thinkers. He communes with himself." When, however, Mr. Harriman began to study the traffic systems of America, and discovered their weak and strong places, he naturally found himself in contact with some of the great railway speculators, for he was not a man to dream over long about a thing. He either took action within a reasonable time or turned aside from it altogether. At the outset of his railway career Mr. Harriman did not venture anything with any of the great lines running out of New York, or from the New Jersey side. For one thing, these systems were to such a large degree controlled by the Vanderbilts and others of the better known financiers that it was difficult for an outsider to make any profitable connection with them; so he looked in other directions, and after a while, in association with Mr. Stuyvesant Fish, managed to secure a considerable interest in the Illinois Central Railway. Mr. Stuyvesant Fish had for many years been a power on the Illinois Central directorate, and when he discovered that Mr. Harriman possessed special ability and knowledge of railway requirements he not only provided a position for him but exerted himself successfully in advancing Mr. Harriman's interest. Mr. Fish had full confidence in Mr. Harriman, and seldom has confidence been better bestowed or better justified. Little by little Mr. Harriman worked his way to the leading position, and under his active and energetic control the Illinois Central Railway became the greatest and most flourishing railway system entering Chicago. By patient industry and indefatigable labour Mr. Harriman was able greatly to extend the operations of the line. It was at this period that he attracted the notice of Mr. James J. Hill, the successful president and manager of the Great Northern system, and they became firm friends. That friendship was of great help to him both then and later on, Mr. Hill being then as now one of the most powerful of the magnates of the Middle West.

Effects an Alliance with Pierpont Morgan.

From 1893 a fresh career may be considered to have opened out for Mr. Harriman. He escaped unscathed from the terrible financial stress of that year, although more than once forced almost to the verge of ruin. Then, when the crisis had passed, he saw that the country would have to a certain extent to undergo a process of rebuilding—especially in connection with its railway systems. The trust principle was spreading on all sides, and the capitalistic employers all through the United States were beginning to believe more and more in the advantages of industrial combination. Mr. Harriman saw that the idea would extend to railways, and resolved to become one of the leaders in the consolidation of railway interests that appeared inevitable. For a few years after the panic of 1893 he remained comparatively unnoticed, prosecuting his various undertakings quietly and silently, though by no means unprofitably. All the while, however, he was busy figuring out great schemes of railway combinations, and when his plans were matured he put them before his friend James J. Hill and Mr. Pierpont Morgan. A sort of working partnership between the three was the result. Mr. Morgan realised that in putting out vast sums of money in gigantic railway deals Mr. Harriman could be of great use to him, and Harriman on his part saw that there was a great deal to be accomplished by having at command the backing of a famous banking house such as that which Mr. Morgan controlled. Mr. Hill joined forces with the pair both as a railway man and as a capitalist. Each of the men had achieved great things in the obtaining of railway control in different parts of the country, and with a fusion of interests it was evident that still mightier things were possible. The railway situation in the West was practically dominated by Hill and Harriman; Morgan controlled the coal roads of the East and the immense plexus of railways covering the Southern States—the Southern Railway—as well as its various connections. In order completely to command the position Hill and Harriman required but one great system, the Southern Pacific, which controlled also the Central Pacific from Ogden to San Francisco. Mr. Harriman had, in the meantime, secured the

Union Pacific, which ran from Omaha to Ogden. Thus all was ready for the great *coup* of all—the conquest of the Southern Pacific—which, as all the world knows, was successfully accomplished, settling the supremacy of Mr. Harriman in the railway world of America. The systems in which he and his friends are interested belt the nation. They are absolute dictators of all traffic west of the Mississippi River. If the American Government should ever decide to take over the railroads of the nation, a quarter of an hour's consultation with Messrs. Harriman, Hill, and Morgan would probably settle the matter.

MR. HARRIMAN OUT OF BUSINESS.

It is said that Mr. Harriman is a man of simple tastes and habits, and that for so rich a magnate as he must be to-day, he is singularly free from display of any kind. He is fond of country life, his fad being fine stock and fast horses. He has a large estate and mansion at Tuxedo, and in everything pertaining to the improvement of agriculture, the breeding of horses and cattle, and so forth, evinces as lively an interest as if farming and not railways had been his great hobby. To see him moving about among his prize stock, and giving instructions to his men regarding the management of his extensive farm would give a stranger the impression that he was a healthy, active, hearty country gentleman, not a ruler of railways; but to see him at his office in the Equitable Building in Wall Street is to make the acquaintance of a very different kind of individual—one of the keenest, cleverest, and most far-seeing of the modern wizards of Wall Street.

DILL THE PEACEMAKER.

Another prominent New Yorker, who, although not strictly a financier, is still entitled to be classed with the wizards of Wall Street, is Mr. James R. Dill, the greatest company organiser in America. He is in touch with most of the big trusts and combinations, and his powers of enterprise-construction are such that when the kings of finance have a big deal on, they are pretty sure to call in his masterly aid.

Mr. Dill has had a remarkable career even for an American. Not many years ago he was a newspaper reporter in Chicago, and it is said that, while acting in that capacity, he on one memorable occasion woke up a prominent citizen at three o'clock in the morning to ask him whether he thought there would be a change in the weather. It was said of Mr. Dill then that, after successfully accomplishing this feat, there was nothing that he would not be able to achieve in which a supreme exhibition of tact was necessary. Then Mr. Dill drifted to New York, studied for the bar, and became a lawyer. From the first he made a specialty of company business, and soon acquired a high reputation, being the means of piloting many of the best known recent trust combinations into prosperous action by bringing them within the operation of the favourable trust laws of the State of New Jersey. There was nothing in this line that was too difficult for Mr. Dill to perform, and his presence in Wall Street became almost as familiar as that of the money-kings themselves. One of Mr. Dill's most renowned achievements was that of making peace between Mr. Andrew Carnegie and Mr. H. C. Frick, and for drawing up the papers under which the later steel company was organised. There were suits and counter-suits pending between the two ironmasters, the claim that Mr. Frick made amounting to many millions of dollars. Both litigants had got to the angry stage, and a good deal of feeling was being shown. At this point some one suggested that Mr. Dill should be called in to endeavour to make peace between the two multi-millionaires, and the result was that all differences were amicably settled, and Mr. Dill pocketed for his good offices the handsome fee of a million dollars. It is said that Mr. Dill enjoys the friendship of every millionaire in the United States, and that alone will sufficiently account for his being one of the shining lights of Wall Street. Away from his trust-organising and his quarrel-arranging, Mr. Dill lives the life of a prosperous lawyer, who enjoys his country home in New Jersey, as the majority of American millionaires have the habit of doing. The relief that rural existence affords them is more than the craving for something that gives contrast to their busier hours of money-making; it is a survival in most cases of the love of old associations, nearly all of these men having in early life been in touch with agricultural pursuits more or less. Mr. Dill's hobby is saddle-horses, and every morning he and his daughter take an hour's ride through the quiet lanes of the New Jersey Oranges at an hour when most of the inhabitants are deep in slumber. One other hobby Mr. Dill indulges only once a year, and that is angling. For several years past he has reserved a month each autumn for a fishing trip to the Rangeley lakes, and at these times he enjoys himself with the zest of a true Waltonian, and no one would ever imagine who saw him out on his boat pulling up the black bass and the pickerel that when in New York he was one of the great money-anglers, with the sea of Wall Street to practise his art in, his brains and mother-wit his bait, and his "catches" millionaires. One of Mr. Dill's achievements of the early part of 1901 was the floating of a gigantic trust of trusts. Under the name of the North American Trust Company, of New Jersey, an organisation was formed, which absorbed the Trust Company of New York, the Corporation Organisation and Trust Company of Chicago, the New Jersey Registration Company of Boston, the Corporation Trust Company of Maine, as well as other minor corporations. One of the results of this combination was that it took over all the business of the United States Government, with its new dependencies in the Atlantic Ocean, and was reaching out for the Philippines and Hawaii. A capitalisation of about £10,000,000 was represented. It needed a great mind to bring into active being so far-spreading an undertaking, and Mr. James Dill provided that mind.

THE GREATEST OF THE GOULDS.

Although he can scarcely hope to attain the financial fame of his father, the celebrated Jay Gould, George Jay Gould is one of the powers of Wall Street to-day, and holds one of the most commanding positions among the "Wizards of Wall Street." He is a New Yorker of a thorough-going type, loving the city he was born in in 1864, and taking an active and prominent part in its daily life. He was educated privately to begin with, and completed his schooling at the Comell School, from which he graduated in 1880, at the age of sixteen. He stepped direct from the school into his father's office, and at once showed a capacity for financial affairs that enabled him to be of great service to his father. On reaching his majority he was elected a director in each of the great corporations controlled by Jay Gould, and year by year, by hard work and ability, strengthened his hold so that when his father died, in 1892, he was able to succeed him as their executive and controlling head. Not only had George Jay Gould the confidence of his associates at that time, but he had also the confidence of the public. He had been tried in the financial balance and had not been found wanting. The result was that not the slightest disturbance took place in the values of the securities of the companies. Since then much has taken place to confirm Mr. George Gould's position, and although his father left him a great fortune—adding thereto a special million pounds as a recognition of the good work he had done as his coadjutor—he has greatly amplified that fortune by his operations on Wall Street. He is now the head and master mind of six of the greatest industrial enterprises—railroads and telegraphs—in America, involving six hundred million dollars in stock and bonds, and commanding the services of over 80,000 employés.

These properties have been invariably well managed, and besides giving admirable service to the public, have been highly successful as investments. In the recent great Southern Pacific deal engineered by Mr. Harriman, Mr. Gould was an important aid and provider; and, in fact, for all legitimate schemes which harmonise with his own undertakings he has a kindly leaning.

"DEACON" WHITE.

Though not one of the foremost of the "wizards," Mr. Stephen V. White, more familiarly known as "Deacon" White, from his long association as "deacon" with Plymouth Church, Brooklyn, particularly during the pastorate of Henry Ward Beecher, is one of the most interesting characters of the great financial thoroughfare, and has had a somewhat exciting career. Prior to 1865 he practised law, in Des Moines, Iowa, but not being satisfied with his opportunities for money-making or with his profession out there, he boldly went to New York and established himself in Wall Street. For many years he was exceedingly cautious in his ventures, taking few risks and prospering; but during the "eighties" Stephen V. White & Co. became more daring, and took one risk too many and failed. "An utterly unforeseen combination of men and circumstances arose against me," wrote Mr. White, "and I was forced under. No man is infallible." His great fortune was swept away, and for the moment his condition seemed hopeless; but he put his shoulder to the wheel again, and within a month of his failure had repaid £10,000 of his debts, and within a couple of years had settled with all his creditors to the last cent, with interest. To-day "Deacon" White is one of the substantial men of Wall Street.

The "Deacon" is another example of the farmer's boy blossoming into the financier. "It is a good thing," he says, "for a young man to have passed his boyhood on a farm, and if he makes his way with nothing at the outset of his career but his own brains, and character, and will, his satisfaction through life will be greater. My father moved from North Carolina during the 'Nat Turner rising,' in 1831, because he didn't approve of slavery, and we travelled—I was about forty days old then—by waggon over the mountains of Tennessee, and through the wild regions of Kentucky and other States, until we finally reached Illinois. We settled in a log-cabin, in a clearing in a virgin forest, about six miles from the junction of the Illinois and Mississippi River. It was there I passed my boyhood, doing a great deal of hard work. When I made up my mind to go to Knox College, I began to teach school to provide the necessary funds; and, when graduated, went down to St. Louis to study law, and supported myself by working as a reporter on the *Globe Democrat.* I was admitted to the Bar in 1856, and the following month hung out my shingle in Des Moines, Iowa. In 1861, I successfully defended the only treason case ever tried in that State; and during the long illness of the United States District Attorney of Iowa, I conducted all the Government's civil and criminal cases. While I gave up the active practice of law when I came to New York, in 1865, I served a term in Congress in the "eighties," representing a district in Brooklyn, where I have lived for many years. When I go home, I like to forget all about my business and give myself up wholly to my family. In my home I have one of the largest private telescopes in the country, and when surveying through it the immensity and glory of the heavens all financial deals seem very small."

And so the story of the Wall Street "wizards" might be continued indefinitely. Many other names present themselves: among them, the Moore Brothers, James Stillman, Kuhn Loeb & Co., Jefferson M. Levy, Charles W. Morse, Jake Field, and Philip J. Brutt. They are coming and going all the time; old "wizards" disappear, and new "wizards" arise, and the restless game of speculation goes merrily and unceasingly on.

CHARLES BROADWAY ROUSS

THE BLIND MILLIONAIRE

A YEAR or two ago Charles Broadway Rouss, the well-known American man of business, who had the misfortune to lose his sight in 1895, made a general offer, to all whom it might concern, of a million dollars to any one who could be found to restore his sight. According to the specialists who had previously examined his eyes, he was suffering from what is known as paralysis of the optic nerve, a disease for which it is generally believed there is no cure. Mr. Rouss, however, was hopeful of recovery, notwithstanding the verdict of the professional specialist; hence the tempting offer he made, which resulted in his being pestered with applications from thousands of quacks and fanatics, faith curists, divine healers, second sight seers, and others who craved permission to try their various arts upon the afflicted merchant. Judging from these offers, instead of there being no cure for Mr. Rouss there were thousands, each of which was infallible, if only a certain amount of money was paid down to set the cure-worker going. But Mr. Rouss, blind as he was, could see through the weakness of the main portion of the applicants for leave to give him back his sight. It was the money they were after. So it was only with a few of them that he took any trouble, but even when he had thinned them down until, to his thinking, he had eliminated the impostors from those who were sincere, he still had on his hands a larger number of proposed experimenters than he well knew what to do with. He was over sixty years of age, but, with the exception of his blindness, was in robust health, and continued to transact his business, with the help of his son, with a greater amount of cheerfulness than might have been expected under the circumstances.

ATTEMPTS TO HEAL THE BLIND.

Very few members of the medical profession took any notice of Mr. Rouss's offer, it is well to explain; in fact, the profession had made up their minds that Mr. Rouss had lost his vision absolutely, and that restoration of sight for the Broadway merchant was utterly impossible. The quacks, however, crowded in upon the suffering merchant, and some of them appeared to be very plausible in their proposals, so much so, indeed, that Mr. Rouss consented to allow several of them to make a trial; but, as he could not spare the time from his business to submit himself personally to all the experiments which the healers wanted to make, he hired another blind man, who had the same trouble as afflicted Mr. Rouss, and paid him the not over princely salary of six dollars a week to give himself up as a substitute to the practitioners. Every now and then an announcement was made in the newspapers that some cure was on the point of success, and there is every reason to believe that Mr. Rouss himself had very sanguine hopes at one time that the offered reward of a million dollars would ultimately result in the regaining of his lost eyesight. The experimenters, one and all, assured him that success would crown their efforts. That is, each man said that *he* would accomplish the feat, and he alone. Every other experimenter was on the wrong tack. Codlin was your friend, not Short.

But time went on; month succeeded month, and the blind man substitute was kept at his post without any particular good resulting from the business; and after a while Mr. Rouss himself got somewhat disheartened, cut the substitute's wages down to three dollars a week, and in the end dismissed him and the army of quacks altogether from his service, withdrew his million-dollars offer, and declared that he had become convinced that it was God's will he should remain blind for the remainder of his life. Mr. Rouss, however, does not repine at his misfortune, but continues to manage his great business in Broadway with energy and spirit, probably arriving at the consolation that, after all, he has much to be thankful for in the matter of worldly estate and comfort, if he also has much to regret in the obliteration of his sight. The eyes of Mr. Rouss are not disfigured by his blindness, and except for a lack of lustre they appear natural when at his work; then his eyes are open, and he will look at any one who is talking as if he had still the power to see.

A Son of the South.

Mr. Charles Broadway Rouss has had a very interesting and adventurous career. He was born in 1836 at Woodsboro', Frederick County, Maryland. His father, Peter H. Rouss, was a man of some position in that part of the country, as is evidenced by the fact that in 1841 he was able to purchase a considerable estate called "Runnymede," in Virginia, to which place he removed his family shortly afterwards. In 1846 Charles Broadway Rouss entered the Winchester Academy, where he acquired a sound education and proved himself a bright and earnest student. At the age of fourteen young Rouss obtained a position in the general store of Mr. Jacob Senseny, of Winchester, at a salary of one dollar a week and board, which was increased from time to time, enabling Rouss in the course of four years to save a sum of five hundred dollars, which he deemed sufficient to start on his own account upon.

A Venture in Dry Goods.

Leaving the service of Mr. Senseny, Mr. Rouss took a journey to Baltimore, where he laid out the main portion of his savings in the purchase of a stock of dry goods. He was only eighteen years of age, but he had plenty of original notions of his own as to methods of business, and at the outset determined to avail himself of the aid of the advertising columns of the local newspapers. His first advertisement was of a character calculated to attract attention on the part of the inhabitants of the staid old town of Winchester, and the following was one of the most prominent sentences appearing in the announcement: "We shall keep everything calculated to make a man fashionable, a lady irresistible, and a family comfortable." This advertisement appeared in big black lines in the Winchester newspapers, and was also printed upon handbills which were scattered far and wide over the Lower Shenandoah Valley. Mr. Rouss made a very handsome show, his business premises were centrally situated, and he was well known, having made himself very popular during the time of his services with Mr. Senseny. His motto was, "Quick sales and small profit," and almost from the first his enterprise was a success. It soon became necessary for him to replenish and enlarge his stock of goods. All went well with the dry-goods merchant until the breaking out of the Civil War, which had the effect of paralysing trade generally, and greatly affected the operations of small shops such as he was proprietor of. It was a trying time for everybody when the troops of the North and South were in deadly conflict, and the suffering of the people of Winchester was great. Mr. Rouss did good service to his friends and neighbours in the early days of the war by securing over one thousand sacks of salt and selling it at cost price, thereby putting himself on better terms than ever with the people of the Lower Shenandoah Valley, as salt was an article of necessity that had been badly "cornered" and was being sold at exceedingly high prices.

BETWIXT LIFE AND DEATH.

Matters now went from bad to worse. Winchester was one of the places which suffered much from the occupation of the troops. Before the town fell into the hands of the Federal army in 1862 Mr. Rouss removed his stock to Richmond, quickly disposed of it for what it would realise, and in a spirit of earnest patriotism threw in his lot with the Confederates, entering the Confederate army as a private soldier. From that time to the end of the war Mr. Rouss had to risk his life from time to time on the battlefield, and was often called upon to endure great hardships; but he went cheerfully through the campaign and did his best, like the other gallant men who gave their services to their country; and when, at last, the army of General Lee surrendered and the war was brought to a close, Mr. Rouss found himself entirely destitute of means, having spent every penny of his fortune upon the lost cause. Fortunately he had been able to go through the discomforts and perils of the campaign, to endure the severe marches, to pass through the exposures to the cold of winter and the heat of summer, and to bear himself valiantly in the hour of conflict at the battle front, without having been hurt, or having fallen into the hands of the enemy.

AFTER THE WAR.

Mr. Rouss returned to his old home in the Shenandoah Valley at the conclusion of the war, and for a time made himself useful on his father's farm; but as the months went on he began to have fresh longings for a business life, and after the first harvest was over in 1865, and the crops had been gathered in, he quietly informed his father that he had made up his mind to go farther afield in quest of a new success, and that agricultural pursuits, though all very well for some people, were not exactly in his line. He was married at this time, and had one child; but this fact did not prevent him from attempting to make a fresh start—it rather acted as a spur to his efforts. He resolved to go to New York, and departed from the old homestead in Virginia, accompanied by his wife and child, with only five or six pounds in his pocket to provide everything with. Arriving in New York he began to cast about for employment, but times were hard and many people were out of employment, so it was some time before he got into anything. His dollars rapidly disappeared, and he was left apparently resourceless, and would have had to apply to his father for help had not a temporary opening been secured in the nick of time. It was an arduous task to get a little capital together again out of the small earnings that he was able to make in one employment and another, but he was full of energy and spirit and always on the look-out for new opportunities. His employers took to him, and his salary was ultimately increased sufficiently to admit of his putting a little money by. When he had left Virginia he had been full of hope, and had said to his father that he was going to New York to become a second A. T. Stewart; but it was a considerable time before he got a footing in business on his own account at all. The opportunity came, however, and, with no more capital than he had started out with in the old town of Winchester in Virginia, he made bold to risk a second venture in the chief city of the Republic. Again he availed himself of the use of clever advertising; again he set himself to minister to the wants of the people at low prices; and again he had the satisfaction of finding that his business policy was one that was attended with success.

A Serious Set-back.

His progress was slow, but just as soon as he got to be better known he made rapid strides, and in a while achieved quite a solid prosperity. The years rolled by, each twelvemonth finding him more prosperous than the last, until the panic of 1877 came upon him, and for the time completely blighted his prospects. He was then shipping goods to more than a hundred different stores scattered over the country, and had outstanding obligations in New York extending to over ten thousand pounds. Being unable to collect what was owing to him he was forced into the bankruptcy court and surrendered everything that he had to his creditors. This was a terrible blow to Mr. Rouss, and one from which it almost seemed impossible to recover himself; but, determined not to be shut out of business altogether, he made another start—a third start—in a small room in Church Street, New York, for which he paid a rent of one dollar a day. This rent, he says, was the hardest to pay of any he had ever any contract for, but he managed by dint of indefatigable industry to do a paying business in the little room after a time, and then once more prosperity shone upon him, and he began to make headway at a greater rate than ever. From the little room in Church Street he was soon able to remove to a front shop in Broadway.

Broadway in Broadway.

In these days the gigantic store of Charles Broadway Rouss is one of the sights and institutions of New York City. It is an establishment which constitutes a wonderful *omnium gatherum* of attractive wares of many different kinds, and is the great curiosity shop of America. Not only does Mr. Rouss cater for the higher tastes of the better classes, for whom he provides costly decorative objects, pictures, vases, musical instruments, rugs, and almost everything that could be thought of for the ornamentation of a mansion or the recreation or amusement of its occupants, but he also caters on a very wholesale scale for agents, pedlars, and small shopkeepers who deal in cheap and attractive novelties, toys, tricks, and so forth. He is said to employ many hundreds of agents to sell for him in the streets and elsewhere, and is ready to give every man who wants employment a job of this kind at a dollar a day; but it may be taken for granted that the agent has to prove himself to be worth his dollar a day or he will not remain long in the service of the blind millionaire. It is said that he pays his employés every night, and is thus able to begin each day with a clean slate. Mr. Rouss has not arrived at his present height of success all at once, however, as may be imagined. He has occupied three separate establishments on Broadway, for the last of which, before his present establishment, he paid a rent of six thousand pounds a year, and even there found himself soon cramped for space and compelled to look out for more commodious premises. His last move was that into the structure he now occupies, which is of great dimensions and cost him a round million of dollars to build. In this busy market-place Mr. Rouss transacts a business representing a turnover of some three million pounds a year, and as he realises five per cent. "net spot cash" from his sales, some idea of his lordly income may be readily obtained. He employs over five hundred people in the establishment, and until lately has been the busiest worker in the place, seldom putting in less than twelve hours a day.

A Benefactor to the South.

While Mr. Rouss has for the best part of his life been absorbed in the prosecution of his business affairs, he has not neglected his duties as a citizen, but has made many generous gifts to public objects, and has shown very especial regard for the people of his own homeland. His gifts to Winchester alone aggregate over twenty thousand pounds, and include a fine water supply, a handsome iron railing around Mount Hebron and Stonewall Cemeteries, a fire-engine service, and many other gifts. To the University of Virginia he presented several thousand pounds for the erection of a building for the teaching of science, and for the erection of a Confederate Memorial Abbey has offered a contribution of twenty thousand pounds. In addition to these benefactions Mr. Rouss has given freely and generously to the various charities and public institutions of New York, and his private gifts are known to amount to many thousands of dollars per year.

AN ART COLLECTOR.

For many years Mr. Rouss has taken great interest in matters connected with art, and his palatial mansion on Fifth Avenue, opposite St. Patrick's Cathedral, contains a goodly number of paintings of considerable value, as well as some costly and beautiful sculptures; but even in his love for art his sentiment for the South which he so dearly loves crops out, his gallery of pictures including numerous portraits of Confederate generals and politicians, as well as historic portraits of Jefferson and other statesmen of the revolutionary period.

JAMES J. HEINZ

THE CONDIMENT KING

It is only in recent years that the United States has developed on any large scale the business of providing condiments to its own people. In the old days Americans relied to a great extent upon the countries of Europe for their supplies of this class of goods, and as far as quality was concerned they had not much to complain of, although in the matter of price the imported article was necessarily dearer than the home manufacture. It was in the natural course of things that the time would come when America would endeavour to be its own provider in this special direction, no less than in the more important industries which go to the building up of a nation's greatness. The iron and steel industries and the textile industries moved along at a gallant pace, and year by year the imports of metals and textiles fell off and the exports of such articles increased, until it was eventually discovered that it was not much that the country needed of these classes of goods from foreign countries. Many other enterprises, apart from the leading ones named, were all the time making steady progress, without being particularly noticed.

A Single Room Start.

Amongst these was the undertaking which was originally founded at Pittsburgh by Henry J. Heinz, a name which within the last ten years has come into great prominence and has lately made itself known on the European side of the world. If American steel and iron, American machines, and American cloths could find a market in Europe, why should not American condiments be welcomed there also? At all events, it is to be presumed that Mr. Heinz argued in this way before venturing to put his goods in competition with well-known goods of a like class and of a world-wide celebrity which were being produced on this side of the Atlantic.

Mr. Heinz's story is altogether an interesting one, and of that thorough American character which is very much approved in these days. He began his enterprise in a humble way, like many of his competitors in the larger industries, and worked his way up from small beginnings to larger and larger undertakings until he found himself eventually at the head of a business concern of gigantic proportions. It was in 1869 in one small room of a two-storeyed building on the outskirts of Pittsburgh, that he began to manufacture his pickles and condiments. He had probably at that time no more ambitious aim than to furnish a small proportion of Pittsburgh's own requirements in regard to the commodities he was undertaking to supply. Mr. Heinz was a native of Pittsburgh, having been born in that city on the 11th of October, 1844. His father was Henry Heinz, a local brickmaker, who also engaged to some extent in vegetable gardening. His mother, who was a remarkably pious woman, devoted herself closely to his welfare, saw that he received as good an education as their means would allow, and imparted to him those precepts of homely wisdom and Christian faith which have always stuck to him and been his great guiding principles.

A STEADY YOUNG MAN.

As a boy Mr. Heinz showed himself to be capable of self-culture, and in the educational movements of the time he took the deepest interest. As a Sunday School worker he became prominent in early manhood, and has never ceased his connection with that good work, being to-day President of the Alleghany County Sunday School Association, and Chairman of the Executive Committee of the Pennsylvania State Sunday School Association.

In 1871, only two years after he had entered into business, he found it necessary to take larger premises, and removed his place of business into the heart of the city, where he occupied a large four-storey building. For several years, however, Mr. Heinz kept to Pittsburgh alone, working steadily at the improvement of his productive capacity, but all the time taking steps to enable him when the proper time arrived to branch forth in other directions. For a time he was not only his own manufacturer, his own buyer, and his own seller, but practically attended to the working of every department. The great secret of his success was his determination to put upon the market very high class goods, and to sell them at the lowest possible figure. He began with some half-dozen different condiments of the more popular kinds, and having established a fair trade in these with the people of Pittsburgh, he summoned up courage to venture farther afield, visiting other cities, and gradually working up a connection that became highly profitable.

RAPID DEVELOPMENTS.

Pickles, and pickles alone, served his purpose for a few years. After that, he extended his borderland, erected additional plant, took larger premises, and went into the condiment business thoroughly, supplying almost everything of that description, from jams and jellies to curries and dishes of pork and beans. In regard to the last-named popular article of consumption, which is supposed to have had its origin in Boston, Mr. Heinz achieved a tremendous reputation. In England people have no conception of the real nature of this famous dish, which is a judicious compound of haricot beans and slices of pork, mixed up into a luscious concoction that is at once cheap, nourishing, and tasty. Whether this dish of baked beans and pork would stand any chance of being widely adopted here is a question which Mr. Heinz is probably able to answer for himself by this time. Many of his goods are on the English market to-day, but the American national dish of pork and beans has yet to be acclimatised on this side.

When the Harvesting is On.

Mr. Heinz's enterprise is indeed of an all-embracing character, and it is very little in the way of outside supplies that he requires for his many preparations at the present time. His firm have vegetable and seed farms in Pennsylvania, New York, Indiana, and Iowa, and they use annually the product of fifteen thousand acres of land. During the harvesting season as many as twenty thousand people are employed by the firm to look after the vegetables and fruits which they use; for Mr. Heinz from the beginning has insisted upon exercising a direct oversight over all the various processes, from the raising of the seed to the delivery of the finished condiments to the storekeepers. They have branch houses for the distribution of their products in every principal city of the United States and Canada, as well as agencies in Mexico, South America, Australia, and Africa. Within the last few years they have also made a determined onslaught upon the European markets, and in England, France, and Germany they are building up a very valuable connection. They employ more than three hundred travelling salesmen in the United States, and thirty-five in Great Britain. It is to Mr. Heinz's energy and great business aptitude that the formation and rapid development of this business has been mainly due, but he has been much more than a mere man of business during his now extensive career.

A True Philanthropist.

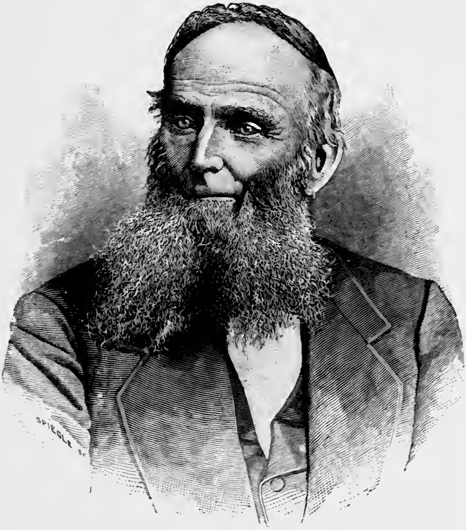
He has shown himself, indeed, to be a philanthropist of a very practical type. While always a practical, energetic, and hard-working man of business, it has been one of the ambitions of his life to establish friendly relations between employers and employed, and to do all that lay in his power to promote the interests of those who are dependent upon him, not only by paying them well for their services, and making the conditions of their toil pleasant and healthful, but by also displaying a real—it might almost be said a fatherly—interest in their social welfare. It is this that entitles Mr. Heinz to special mention. He is essentially one of the successful men of this later time in America, when developments have been so rapid and important. It is not always that an employer is found who is willing to take the trouble to look after his people so thoroughly and affectionately as Mr. Henry Heinz has done. Were there more employers of this stamp there would be much less friction than there is between the representatives of capital and labour. It has been said of Mr. Heinz that he has succeeded in establishing an almost ideal relationship between master and workman by developing a high degree of mutual sympathy and kindly interest between them.

A Model Establishment.

It is one of the sights of Pittsburgh to see the large dining-rooms of the Heinz building, where at the luncheon hour several hundred girls may be seen comfortably taking their meals. There is a separate dining-hall for the men and boys, and food is supplied to all of them at the cost price, every possible thing being done for them in the way of making them comfortable and happy. There are libraries, bathrooms, gymnasiums, and the same building contains a special lecture hall, capable of accommodating over fifteen hundred people. In this hall, which is furnished with opera chairs, free lectures on interesting subjects are given from time to time, and entertainments of various kinds are held there during the winter season. There are also educational classes in connection with the establishment, and Mr. Heinz has provided a musical director to give instruction in music to all employés who have musical talent and wish to have it improved. The dome of the auditorium is of stained glass, the centre of which is occupied by a representation of the globe, upon which are inscribed the words, "The world, our field." Underneath, there are portraits of four leading men of the four great races—the Anglo-Saxon being represented by Gladstone; the Asiatic by Li Hung Chang; the African by Menelik of Abyssinia; and the North American Indian by Black Hawk. Here and there about the hall appropriate mottoes appear, such as, "Tongues in trees, books in the running brooks, sermons in stones, and good in everything"; and "Make all you can honestly; save all you can prudently; give all you can wisely." On the outer circle of the dome are inscribed words typifying some of the higher virtues—"Integrity, courage, temperance, economy, perseverance, patience, prudence, tact," &c. Nor does Mr. Heinz's provision for his workpeople end here. For the summer time there are two large roof gardens, beautifully decorated with flowers, shrubs, and trees, one of which is devoted exclusively to the use of the female workers and the other is set apart for the men. Here during the summer evenings, after the day's work is done, the workpeople are accustomed to enjoy themselves in social amity.

A Busy Man.

Apart from his business, Mr. Heinz is a highly zealous worker in many commendable directions. He is a director of the Pittsburgh Chamber of Commerce, and in all movements for the moral and religious advancement of the community is a leading spirit always. He possesses a rare fund of enthusiasm, is imbued with advanced ideas, and has a wholesome contempt for men who are mere money-makers and money-worshippers, without being alive to their true responsibilities as citizens. There is no duty, public or private, commercial or social, that he allows himself to neglect; and it is his contention that the highest success can only be attained by a proper observance of social, civil, and religious duties. It says much for his solid strength of character that he has been able to make a large fortune out of a business that when he entered upon it was hardly regarded as one worthy of being followed with any idea of great success; but Mr. Heinz was a man of insight and forethought, he saw much further into things than his neighbours. To him it seemed that in the direction he hit upon for his career there was a great opportunity. The field was comparatively unoccupied, foreign countries were ministering to the wants of the American people when Mr. Heinz thought the American people ought to be mainly supplying their own requirements in this respect. It was certainly not a kind of enterprise that would have been likely to have commended itself to the general run of trade aspirants. There was something small about the aspect of the whole trade. It was not one in which a big capitalist would have been likely to have embarked upon, and that was all in Mr. Heinz's favour; so he put his pride in his pocket, made a bold bid for success, and ultimately achieved it. To-day he is one of the honoured citizens of Pittsburgh, and although he does not deal in iron or steel, or machines, or any of the heavy goods for which Pittsburgh is more particularly famed, he is content to pursue his own labours, such as they are, and has, it may be truly said, sanctified them by the high purpose with which he has imbued them.



WILLIAM CRAMP

THE AMERICAN SHIPBUILDER KING

WILLIAM CRAMP & SONS

THE AMERICAN SHIPBUILDER KINGS

In the great revival of the shipbuilding industry in the United States that is now going forward the firm of William Cramp & Sons, whose works are on the banks of the Delaware River at Philadelphia, must necessarily take a leading part. For many years past the Cramp shipyards have been famed, not only in the country of their production, but in many other parts of the world.

Most of the great battleships and cruisers that carried the American flag in 1898 in the war against Spain had been planned and built at the Cramp Works, and it has been truly said that, next to the grit and skill of the American sailor and soldier, the Cramp ships were the greatest factor in reducing the power of Spain and sweeping its navy from off the seas. No other American shipyard can show such a record as that of the Cramps'.

Founded in 1830 by William Cramp, and starting in the most humble way, the business was gradually built up by careful management until it became the most extensive undertaking of the kind in the country. William Cramp was only twenty-three years old when he launched his enterprise; his capital was small, and America was making but little progress in maritime matters. After having solved the steamboat problem by the introduction of Fulton's boats, the shipping industry generally in the United States languished, and it required great determination and courage to enter upon a career of this kind at such a time. The Government offered no special inducements to shipbuilders, and great commercial houses were content to entrust their ocean-carrying traffic mainly to the hands of foreign shipowners.

In 1830, William Cramp found the Delaware River, which in more recent times has earned for itself the title of the Cradle of the United States navy, in no very prosperous condition. The reputation of American ships was all to make, but Mr. Cramp was a man of a very vigorous type, who had a great capacity for surmounting difficulties, and feeling that America ought to be making headway in shipbuilding it was with no small amount of pride that he threw himself into the career he adopted, resolving above everything to do only worthy work. It was one of his principal rules of business, which he at all time adhered to, that every ship that was turned out of the Cramp yards should be something better than the specifications their customer had set for them to work to.

THE OLD "WOODEN WALLS."

Those were the days when ships were built of wood; iron had been talked about, and had been to some extent used for shipbuilding purposes both on the Thames and on the Clyde, but as yet America had not adopted this material of construction, so the first vessels that were turned out of the Cramp establishment on the Delaware were of the old wooden type, and as they went out seaward with their swelling white sails spread to the wind they formed a pretty enough picture, but hardly represented the full extent of shipbuilding progress. That point was reached, however, in good time, and as years went by the Cramps were turning out steamships and battleships of the very latest patterns, with triple expansion steam-engines for the motive power, and every other element of development included in their equipment.

William Cramp gloried in his work, and was determined to make a success of it; his eldest son, Mr. Charles H. Cramp, the present head of the company, recently referred to his father in the following words: "Mr. William Cramp liked a profitable contract, but he liked better to have his name borne over the world as the builder of famous ships, and more than once in a long career his ambition for distinction got the better of his desire for profit. At the time of his death, in 1879, he had completed more than half a century of constant professional work on his own account, during which period he had doubtless missed fewer days' work than any man he had ever employed. His vigour of body was equal to the energy of his mind, and it is literally true that his last illness was also his first."

ON THE DELAWARE.

The original shipbuilding yard along the Delaware waterfront grew from year to year in extent and importance, and within a few years of its founding achieved such a reputation as insured Mr. Cramp ever-increasing orders. Acre after acre of land was taken into the enterprise, and from the construction of small commercial craft at the outset they gradually extended their operations to other classes of vessels. One of the first vessels that William Cramp built was the *George William Clyde*, an 1800-ton ship for the New York and San Domingo trade, which carried the first compound engine built in America. Of the clipper style of ship, the Cramps obtained much honour for the full-rigged sailing vessel *Morning Light*, which excelled all other clippers of that time in the matter of speed.

SHIPS OF THE CIVIL WAR.

During the time of the Civil War, several vessels were built at the Cramp yards for the Government, including the *New Ironsides* and the *Chattanooga*. The *New Ironsides* was one of the most active vessels engaged in American waters from 1861 to 1865, and bore a conspicuous part in many important engagements, including the attack on Fort Sumter and the bombardment of Fort Fisher. She was a favourite ship, and undoubtedly one of the triumphs of the time; she carried eleven-inch Dahlgren guns, was coated with armour plates of four inch thickness, and made a speed of eleven knots an hour, and although these features seem small indeed in comparison with what is realised in the armoured ships which are sent out of the Cramp yards to-day, it cannot be denied that the *New Ironsides* was for her day and generation a very notable vessel of war. In every development of marine architecture, whether relating to the mercantile marine or the requirements of the navy, the Cramps have shown themselves to be thoroughly up to date. On three separate Government vessels, the *Brooklyn*, the *Columbia*, and the *Minneapolis*, the total contract price for which was nearly one million seven hundred thousand pounds, the Cramps have earned and been paid a bonus of over two hundred and twenty thousand pounds in premiums for excess over guaranteed speed and horse-power, thus further exemplifying the business motto with which the founder of the firm started out, namely, that they should be always a little better than their specifications called for. As a matter of fact, nearly every ship built by the Cramps up to the time that a navy department re-arranged the speed premium system, large premiums were earned; for instance, the *New York* realised £40,000, the *Philadelphia* over £27,000, the *Baltimore* over £21,000, the *Iowa* over £40,000. The *Columbia* triple-screw protected cruiser and commerce destroyer earned £70,000 premium by showing a sustained speed of 22.81 knots an hour, while the *Brooklyn* armour cruiser earned a like speed premium. The last-named ship of war was chosen to represent the United States navy at the International Naval Demonstration off Spithead in commemoration of Queen Victoria's Diamond Jubilee, and a flagship of Rear-Admiral Schley led the flying squadron which chased Cervera's fleet out of Santiago harbour, and shared with the *Oregon* the honours of the unsuccessful pursuit and capture of the *Cristobal Colon*. Another famous war-vessel built by the Cramps was the double-turreted coast defence monitor *Terror*, which captured the Spanish steamship *Guido* off Havana in May 1898.

This was the most valuable prize of the war. The *New York* armoured cruiser, also built by the Cramps, represented the United States navy at the International Naval Demonstration at Kiel, in 1895, in celebration of the opening of the North Sea and Baltic Ship Canal, on which occasion it attracted the special attention of the German Emperor, who visited it several times. Later on, in 1898, the *New York* was Rear-Admiral Sampson's flagship. The *Alabama* and the *Massachusetts* are also among the newer battleships launched from the Cramp Delaware yards. The names of these ships already form part of the Republic's naval history, and abundantly prove that in the art of naval architecture the Cramps will rank favourably with any of the great builders of war vessels of Europe.

CRACK ATLANTIC LINERS.

It is only in recent years that America has made any decided attempt to compete with Great Britain and Germany in the building of steamers for Atlantic passenger traffic, but the steamers constructed by the Cramps for the American line are regarded in point of beauty of construction, speed, and other requisites, successful competitors with the best of the European trans-Atlantic liners. It is true that some recent productions of the British and German shipyards, which have put upon the ocean such mammoth vessels as the *Oceanic*, the *Kaiser Wilhelm*, the *Celtic*, the *Campania*, the *Lucania*, and the *Deutschland* stand pre-eminent; still, taken for what they aim at being—the best possible vessels of their class and size—the result has been eminently gratifying not only to the builders but to Americans generally, who see in the recent developments of shipbuilding in their country signs of a coming greatness on the seas which shall be to some extent commensurate with their supremacy in other industrial directions.

"American from Truck to Keelson."

The *St. Louis* and the *St. Paul*, of the American line, were, to use the words of Mr Charles W. Cramp, the builder, "American from truck to keelson; American in model and design; American in material, and built by American skill and muscle; hulls, boiler, machinery—everything were made by the Cramps at their own works on the Delaware, and for the first time in the history of large shipbuilding in America the builders did not have to rely for any aid whatever from foreign sources." The two famous liners referred to proved valuable auxiliary cruisers during the war with Spain, and by their speed and the ready manner in which they were capable of being handled they gave an exceedingly good account of themselves, thus testifying to the excellence of their construction and the ability of their management. The two steamships are of 11,600 tons each, with a warranted speed of twenty knots an hour. To accommodate the ships it was necessary to build new piers in the North River, New York. The spirit in which the new departure was carried into effect may be gathered from the words of President Harrison, on the occasion of the launching of one of the vessels: "I have felt," he said, "both as a citizen and as President, the mortification that every American must feel that examines into the standing of the United States in the merchant marine of the world. I believe that we have reached an epoch in our development when we may successfully recover our fair share in the carrying trade of the world. We lift the flag to-day over one ship—a magnificent specimen of naval architecture—one of the best afloat on any sea. The event is interesting in itself, but its interest to me is in the fact that the ship is the type and precursor of many others that are to float the flag."

From that time one significant event quickly followed another, as if to prove President Harrison's prophecy, and not only have the Cramp shipyards been actively employed since that time in building a succession of splendid vessels of all descriptions—ships of war, torpedo boats, passenger steamers, pleasure yachts, and what not—but there has recently been a determined effort shown in other quarters to obtain, equip, and utilise other vessels on behalf of the United States, and the prospect at the present time is that before long America will hold its own on the sea as forcibly as it does in other spheres of commercial activity.

INCIDENTS OF WAR.

It is worth while referring to an incident or two in connection with the sudden conversion of the ships of the American line, built by the Cramps, from their ordinary passenger service on the Atlantic to the exceptional service of naval warfare. When the *St. Paul* came into the port of New York after sundown on April 16, 1898, the work of unloading to put her in readiness for war service was immediately begun; all night long, under the glowing electric lights of the American pier, stevedores, with a double force of men, toiled in feverish haste and at six o'clock in the morning the ship was ready to receive her new commander, Captain Sigsbee, who had previously been in command of the *Maine* battleship, which on February 15, 1898, had been destroyed, together with two hundred and sixty-six American seamen, in Havana harbour. Captain Jamieson, who had been in charge of the *St. Paul* up to that moment, welcomed his successor with the simple words, "It's a fine ship, Captain, that I am to turn over to you—a fine ship, sir; we all trust she will behave well." A few minutes later the ship was under weigh for Cramps' shipyard in Philadelphia, her birthplace, to be fully fitted as a war cruiser; and a week later the *St. Paul* was sailing towards Cuba, fully equipped for active service. The graceful ocean liner of a fortnight before had been changed into a formidable warship, carrying four five-inch guns forward and two aft, six three-pound Hotchkiss' guns on the superstructure, two six-pound Nordenfeldt guns on the promenade deck, and four similar guns on the main deck. On the

15th of May she joined Commodore Schley's squadron at Key West, and at once was ordered on scouting duty, appearing two days later at the entrance of Santiago harbour, where, unknown to the Americans, Admiral Cervera had just sought shelter with his fleet. For several days the *St. Paul* kept steady watch at this important post, and, after some days, fell in with the collier *Restormel*, which made an attempt to get into Santiago for the purpose of supplying the Spanish fleet with coal. A blank shot from one of the *St. Paul's* bow guns only served to make the blockade-runner put on extra steam, but Captain Sigsbee was not to be cheated of the prize which had fallen in his way. "Full speed ahead!" was the order he gave, following it with a second blank shot across the *Restormel's* bows. For a short time it was an exciting race, but presently the *St. Paul* gained on the Spanish boat to such an extent that its captain reluctantly relinquished the chase and allowed his ship to be taken captive. The captain of the *Restormel* was an Englishman, who showed great annoyance at having to submit to be captured by a mere unprotected cruiser, but he was more angry with the Spanish than with the captors. "I am glad you Yankees have got the coal," he said, as he surrendered, "since those duffers inside did not have the nerve to come out and back me up with their guns when we were right within the range." This remark was news indeed to Captain Sigsbee; it conveyed the first intimation that the Spanish fleet was in the Santiago harbour. After that, the *St. Paul* and other vessels of the fleet set a close blockade upon Santiago, steaming to and fro around the dangerous entrance by day, and playing their searchlight by night, until, on the 28th of May, two Spanish battleships appeared at the mouth of the harbour. One of them was recognised as the *Christobal Colon*. News was immediately dispatched to Commodore Schley, who steamed up with his fighting squadron, when the *St. Paul* was at once relieved of her patrol duty and ordered to join Admiral Sampson before Havana.

The other ships built by the Cramps, especially the battleships, were conspicuous in the various engagements with the Spanish fleet, and in service in more distant seas, and the American Government have good reason to be proud of the achievements of the numerous ships which the Cramp Company have contributed to the United States Naval Service.

Rapid Business Developments.

The Cramp business was already a great business, well established and increasing in extent every year, when, in 1872, the company was reorganised under the title of William Cramp & Sons, ship and engine-building company, with a greatly increased capital. In 1879, Mr. William Cramp, the founder of the firm, died, and his son, Mr. Charles H. Cramp, was chosen to succeed him as president and manager of the company, a position which he fills at the present time with great success. Before the death of William Cramp, two hundred and seven vessels had been built and launched by the Cramps; since that time over one hundred more vessels, many of them of the largest and most formidable types, have been built, representing a much larger rate of output than existed in the days of the founder of the firm. The works to-day occupy more than thirty-one acres, and the capital of the company, which was £100,000 in 1872, is now represented by many millions. In 1830, Mr. William Cramp had a force of not quite one hundred men in his employment; to-day the company have in their service some six thousand men whose weekly wage-roll amounts to about £12,000.

The Cramps, however, are much more than mere shipbuilders and gunmakers. Amongst the tools in use in their great establishment may be mentioned the gigantic floating derrick, the Atlas, which is said to be the largest and most powerful implement of its kind in the world. There is nothing too heavy for its handling, no operation too delicate for it to adjust itself to. It is used for lifting sections of armoured turrets and nests of boilers, which it takes up with ease and dexterity from the pier and conveys them through the air to the ship for which they are required, depositing them so carefully and gently that there does not seem to be the least difficulty attending the titanic operation.

The works altogether are of a most extensive character; one of the buildings is 1164 feet long, with an average width of 72 feet, comprising under one roof the joiner and pattern shops, the machine and erecting-shops, ship-shed, and so on, while one of the boiler shops has a length of 380 feet, and a width of 112 feet, admitting of double-ender boilers weighing more than ninety tons each being hoisted by the floating derrick, which comes along, picks them up, and conveys them to their places on the vessels for which they are destined.

There are five shipbuilding slips, 600 feet in length by 75 feet in width, with a launching depth of 30 feet off the way ends at high water. There are also five wet docks, with wharfage ranging from 600 to 1000 feet in length, each capable of floating the largest vessels, while a complete railway system surrounds the works, connecting them with the Philadelphia and Reading and Belt line systems.

A Great Prospect.

These works, under the energetic management of the Cramps, father and son, represent up to the present time the best achievements of American shipbuilding. That is their record of what has been done. In the days that are coming it is evident that they must play a still more important part. The United States Government and the United States people have made up their minds that they will not only build up a formidable navy, which shall show to other nations that, in quality and power of construction, if not in numerical array, the native shipbuilders can hold their own with the rest of the world, but that they will put upon the seas a mercantile fleet which shall be an aid to their commerce and a strength to the country. In such developments the Cramp Company will have greater opportunities of distinguishing themselves than ever. The advantages they possess are many, and in Mr. William H. Cramp they have an energetic manager who is fully alive to the requirements of the situation—a man of intense patriotism and of conspicuous administrative capacity. From 1830 to 1901 is a long record, but the Cramps have "forged ahead" all the time, obtaining brilliant successes, often in the teeth of untoward circumstances, and there is now no demand that is likely to be made upon them either by the Government or by private companies or individuals that they will not be able to cope with. From the biggest battleship to the daintiest and most luxurious pleasure yachts—from dread vessels of war to the most exquisite ships for peaceful voyagings—the Cramp yards keep on in their busy work of building and launching, contributing worthily all the time to their country's material prosperity.

SENATOR CHAUNCEY M. DEPEW

THE LAWYER KING

In April 1901 the Montauk Club of Brooklyn celebrated the sixty-seventh birthday of Senator Chauncey M. Depew in a fashion which recalls some of the antics indulged in by the sublime society of the Beeksteak Club of England a century or more ago. A great many distinguished people were present, and the Senator was the guest of the evening. After the dinner the orchestra played a cake-walk tune, marching up the centre of the room, followed by two cooks carrying the birthday cake on a large platter. The cake represented a plush pillow with lace edges, and was surmounted by a silver laurel wreath. When the cover was lifted it revealed seven-year-old May Eggleston kneeling over the cake. She jumped to her feet, and said, "Good evening, Senator, how are you? Shake; and, as usual, you take the cake; and as official duties claim you still, please pay attention to our Montauk Bill."

The Senator was, of course, surprised, but there never yet was an occasion that Chauncey Depew was not equal to as far as the expression of words and ready wit go, so, remarking that he had expected a cake but had never dreamed of having it presented to him by a fairy, they passed on to other business, and the chief Montauk (Montauk Bill), whose name away from the Club is William A. Avis, offered the Club's congratulations and best wishes. He eulogised the Senator as "a man who can pass through life forgetting the thorns, ever ready with good report, with mind impervious to cynicism, believing the average man is good; whose successes are so well deserved as to incur no envy; whose fame is a sparkling medley; whose name will live to brighten the pages of our history." The Senator was then formally introduced, the Montauk Indians gave their war-whoop and three cheers for "our Chauncey," then Senator Depew made his little speech.

A GREAT SPEECH-MAKER.

Senator Chauncey Depew is the great speech-maker of America. To hear him "orate" people will travel many miles, for there is no subject under the sun that the Senator cannot handle cleverly, infusing into it that element of gay wisdom which has made him such a favourite. It is no difficulty to him to speak, it is as natural to him as breathing; and his brain is teeming with bright fancies and suggestions that always render his speeches worth listening to. Moreover, he is not of the class of orator who have exalted opinions of themselves. Doubtless he knows that he is a good speaker, but he does not on that account hold himself apart from his fellow-men or wrap himself in an exclusiveness out of which only dollars or influential solicitations can drag him. As a result, he is one of the most popular men in the country, in spite of the fact that his lot has been mainly cast amongst the moneyed classes, whose interests he has ably supported, but never offensively to the rest of the community.

THE POOR COUNTRY LAWYER.

It was through the Vanderbilts that Chauncey Depew came to make his fortune. Mr. Depew was born at Peekskill, in the State of New York, on the 23rd of April 1834, being the son of Isaac Depew and Martha Mitchell, granddaughter of the Rev. Josiah Sherman, brother of Roger Sherman, one of the signers of the Declaration of Independence.

His parents were not in over-flourishing circumstances during his youth, but they managed to send him to Yale, where he acquitted himself with considerable honour, and on leaving the University he entered himself for the bar and was admitted a lawyer in 1858. Success was slow in coming to him, however; Peekskill was no great centre to practise in in those days, and, as he himself has confessed, he spent the early years of his married life not only in poverty, but in debt. Within a few months of his marriage his wife's father became bankrupt, and his own little fortune was swamped in the wreck. "I was not only penniless," he said, "but in debt as well, so we had to begin again early in our lives to practise self-denial and a hundred little economies, yet keep up a semblance of style before the world in which we moved. In those days," he adds, "a girl would give up everything for the man she loved, and no sacrifice was too great for my loyal wife to make."

Little by little Mr. Depew made headway, obtaining a fair number of cases, and presently it became known that the young lawyer was a speaker of more than average ability, and when there was a knotty case to be pleaded in the local courts the chances were that the difficult side of it fell to the advocacy of Chauncey Depew.

A Turning-Point.

Then came the turning-point in his life. His handling of a railway case had the great fortune to attract the attention of old Commodore Vanderbilt, the man who had made millions out of shipowning, and was destined to make many more millions out of railway speculations. The Commodore was a man of violent likes and dislikes; if he took to any one he took to him completely, and advanced his interests to the best of his power. On the other hand, if he contracted a prejudice against a man, even if it were his own son, he was not to be persuaded out of his prejudice except by some noticeable act which served to show that he had been mistaken. It was felt by the friends of Chauncey Depew that Chauncey's fortune was as good as made when Commodore Vanderbilt began to employ the young lawyer to plead his railway cases. Mr. Depew himself probably did not feel quite so sure of this, for the Commodore had whims and fancies, and could not brook contradiction; in fact, the old man needed a good deal of managing, and to a man of Depew's independence of spirit anything like "knuckling under" for the sake of gaining a point was particularly obnoxious. It did not take Mr. Depew long, however, to comprehend the solid qualities of the Commodore's character; and to see that his whims and prejudices were mere things of the surface, little rufflings on the face of a stream of profound depth. So in a short time the old Commodore and the young lawyer got on so well together that Mr. Depew received the appointment of standing counsel to the New York Central Railway, of which Mr. Vanderbilt was the president and main proprietor. From this time forward Mr. Depew's interests were in good keeping. The Commodore came to have a positive affection for the lawyer, and implicitly relied upon his advice in all matters of legal difficulty. More than that, he took him into his confidence in regard to his private fortune, and his relations with his family, and in all things Mr. Depew served his employer to the best of his ability, and became a man of importance.

A Friendship of Three Generations.

From that time to this Mr. Depew's interests have been more or less bound up with those of the Vanderbilt family, three generations of which he has been associated with in business and otherwise, with the result that he is to-day one of his country's Senators and a multi-millionaire. There has been no servility in the service that Mr. Depew has rendered to the Vanderbilts; he has been their equal socially all the time, their truest friend and their most reliable adviser—a man who never uttered a pretty phrase for the sake of winning favour, and who never feared to put the true construction on any incident according to the best of his judgment, however unpleasant it might be. The Vanderbilts always knew that Chauncey Depew would not lead them astray, and it is to their credit that they have remembered him in their wills in such a manner as to show how greatly they have prized his friendship.

There was a time when Mr. Depew had the temptation put before him to forsake the Vanderbilts for a more public position, but it was not yielded to. When Andrew Johnson was President of the Republic, he offered Mr. Depew the position of collector of the port of New York, an appointment which was not only lucrative in itself but carried with it no small amount of honour. Mr. Depew hesitated when the offer was made to him and asked the advice of Commodore Vanderbilt. "Decline it," said the Commodore, in his curtly emphatic manner, "stick to the Central, and you may yet be president of it, at a salary greater than that of the President of the United States." The salary of the chief executive at that time was £5000. Mr. Depew acted on the Commodore's advice and declined one of the richest plums of political life. Nor had he any reason ever to regret the step, for in the course of time the Commodore's prediction came true; Mr. Depew became president of the New York Central system, when it was double the length of that which the Commodore had been president of, and became chairman of a Board of Directors which managed the affairs of a combination of railways of which even the sanguine Commodore in his most imaginative moments never dreamed. It was then that Mr. Depew's salary amounted to twice that of the President of the United States.

Many Public Honours.

Mr. Depew's position in connection with the Vanderbilt railways did not preclude him from participating in public affairs, and at one time he seemed well on the road for the Presidency of the United States; in fact, in 1888, he was proposed by the Republican party as their candidate for that high office, but declined it. As early as 1861 he was elected a member of the New York State Legislature, and again in 1862. In 1863 he filled the position of Secretary of State of New York; and in 1866 was appointed United States Minister to Japan, which position he afterwards resigned; and in 1874 he was elected Regent of the University of the State of New York; in 1885 he had a United States Senatorship offered to him, which he declined; and in 1892 President Harrison offered him the position of Secretary of State, and that too he declined. In fact, he had become so interested in the work of the Vanderbilt railways that he could not be prevailed upon to accept any office that would permanently interfere with his filling his duties in connection with those railways; and there is no getting away from the fact that hard as the Vanderbilts themselves worked in promoting their railway undertakings, Chauncey Depew was all the time one of the most important of all influences in the developments that took place from time to time. He had been brought up to railway work side by side with the Commodore, the founder of the house of Vanderbilt, and had imbibed from him those practical business traditions which have done so much to augment the fortunes of succeeding generations of Vanderbilts. When William Henry Vanderbilt succeeded his father, the Commodore, in the management of the New York Central, Chauncey Depew was ever his most trusted friend and adviser; and when in turn William Henry's eldest son, Cornelius Vanderbilt, inherited the same position, he, too, maintained the family friendship with Chauncey Depew unbroken and unweakened; in truth, if there be one thing more than another that the Vanderbilts are ready to swear by it is Chauncey Depew.

FAMILY COMPLICATIONS.

The late Cornelius Vanderbilt (grandson of the Commodore), who, at his death in 1899, was the head of the Vanderbilt family and president of the New York Central Railroad, bequeathed £40,000 to Mr. Depew by his will, referring to the lawyer as his "life-long friend, associate, and companion."

It will probably never be fully known to what extent Mr. Depew's influence has been exercised in healing breaches between members of the Vanderbilt family. Probably the most painful duty that has ever devolved upon him in this connection would be in having to conciliate the conflicting interests that had their rise in the marriage of the present Cornelius Vanderbilt, son of the second Cornelius, against his father's express desire. This step on the part of the younger Cornelius, who was eldest son and expectant principal heir, cost him his deposition from the headship of the family, his father leaving him only £200,000 in trust for his use during his life, while some £10,000,000 and all the rights of the eldest son were left to Alfred Gwynne Vanderbilt, the second son. What it cost the second Cornelius Vanderbilt to do this act of disinheritance will never be revealed, but Mr. Depew's good offices, after the contents of the will were made known, doubtless had the effect of preventing a serious lawsuit which the younger Cornelius at one time threatened to undertake, and brought about a reconciliation between the two brothers and the other members of the family, which all parties probably duly appreciate. The statement that Mr. Depew gave out after the settlement had been arrived at was to the following effect: "When Alfred Vanderbilt returned from abroad he decided, from brotherly affection and for family harmony, to take out of his own inheritance and give to his brother Cornelius, a sum sufficient to make the fortune of Cornelius the same as that of his brothers and sisters. This has been accepted by Cornelius in the same spirit."

In 1899 Mr. Depew was elected United States Senator from the State of New York, and this time he accepted that which was offered him, and this recognition was received with marked approval by the people of the United States, whom in Chauncey Depew are glad to acknowledge a representative of what is highest and best in their national life.

It would be imagined by those who did not know Senator Depew intimately that an association of a lifetime with the richest men of the moneyed class would have obscured his views, or at all events prejudiced them, and that it would be in the nature of things that he should endeavour to exalt the multi-millionaires; but this is not so, his opinions are never confused on any subject, he sees clearly and distinctly. Referring to the growth of large fortunes in America, he said: "Our millionaire exclusives bar the doors and refuse to let in upon a social equality the representatives of intelligent achievement. They seek to make all except the possessors of exaggerated incomes socially second class. The result is seen in the resentment which well-informed people are discovering to exist and to be growing among those who educate, who form, and who guide public opinion, and whose teachings ultimately crystallise into laws against the holding or devising of great wealth. We can never have a social life as full and rich, as valued and valuable as our prodigality of genius and culture could make distinguished or raise it above gossip, frivolity, shops, and local affairs, as that of the great capitals of the Old World until those who have been blessed with the abundance which enables them to entertain shall recognise the power and pleasure of the salon with its infinite variety of talent and acquirement regardless of money."

As a teller of racy tales Senator Depew has few equals, and one of his most recent stories, which bears in a measure upon the foregoing observations, will repay quotation.

"I sat the other day," he said, "beside a Western man at dinner, and when I began to take some radishes the man asked eagerly, 'Do you eat radishes?' I said 'Yes.' 'Would you mind having that plate of them removed?' he said. 'Not at all,' was my answer, 'but, my friend, what is the matter with the radishes?' 'Well,' said he, 'Governor Flower, who was one of the most generous men who ever lived, and wanted to help everybody, gave me a point on the Flower boom by which I made a great deal of money, and then when the second Flower boom started I went to him again and invested on thin margins with my brokers all I had and all I had made. The Governor went fishing, ate a bunch of radishes, drank a glass of ice-water, had congestion of the stomach, died suddenly, stocks went to smithereens, and I busted. I never want to see a radish again.' It was reckless speculation, not the radish, which ruined him; that man did not understand the true philosophy of life. It is, let the radish furnish enjoyment in the line for which radishes were created; let us find the good there is in animate and inanimate nature; above all, let us discover, cherish, and enjoy the preponderance of good there is in our fellow human beings."

Senator Depew is essentially a man of the world. He has been for the best part of his life engaged in the making of money—for himself and others—but what distinguishes him from most money-makers is this: he has always put elevated aims before him, and has been a man of lofty ideals. He is almost as well known in the best society of London and Paris as he is in the exclusive circles of Fifth Avenue or Newport, and is highly esteemed everywhere; for although he prefers saying pleasant things to uttering Cassandra-like wails and warnings, he is a man of undoubted sincerity of character, neither a panderer to the masses nor a flatterer of the wealthy, but respected and admired by all.

AMERICAN LOCOMOTIVE KINGS

THE BALDWIN FIRM

The history of the Baldwin Locomotive Works at Philadelphia is practically the history of the progress of locomotive engineering in America, stretching as it does from the beginnings of locomotive construction to the present time.

The founder of the firm was Matthias W. Baldwin. He was in business for himself as a jeweller and silversmith in Philadelphia some few years before George Stephenson had successfully surmounted the locomotive problem in England. Philadelphia was an old-fashioned, quiet-going city in those days, and the trade to which Mr. Baldwin had been brought up was considered a highly respectable one. It was in 1819 that Mr. Baldwin opened a small shop and set before the people of the quaker city a select collection of silverware, watches, and trinkets of various kinds. He felt very proud of his achievement as he surveyed his stock-in-trade, and was eager to do business, but, somehow, the Philadelphians of that day were not given much to buying articles of personal adornment, and did not flock in such numbers as Mr. Baldwin would have liked, to make purchases from him. The consequence was that after four or five years of not very lively trading, Mr. Baldwin, who was active, energetic, and ambitious, decided upon making a new departure in his career, and, in conjunction with Mr. David Mason, a machinist, went into business as a provider of bookbinders' tools and cylinders for calico-printing in a shop in a small alley not far from Walnut Street. By this move Mr. Baldwin put himself to some extent abreast with the changing circumstances of the time. It was the period when steam power was becoming adopted in many spheres of mechanical working, and already there was talk of that power being ultimately utilised for purposes of locomotion.

A Step Up.

Mr. Baldwin entered upon his new career with wonderful zest, and pushed his business so ably that orders came in greatly beyond the first expectations of the partners, and to keep pace with the increased demand they had recourse to steam power for the working of their machinery. The first engine they bought, however, did not prove satisfactory, so Mr. Baldwin set to work to design and construct one which should be specially adapted to the requirements of their shop, and succeeded in producing an upright engine on such a novel and ingenious plan that it not only served all purposes for which it was intended but attracted a good deal of attention. But the most important effect of this experiment was that it turned Mr. Baldwin's thoughts in the direction of steam engineering, and prepared the way for his grappling with the problem of the locomotive when, not long afterwards, it came to present itself.

Numerous stationary steam-engines were subsequently constructed by Mr. Baldwin for other firms, and when in 1829 the subject of railroads and railway engines came into prominence, Mr. Baldwin began to occupy his mind with these newer developments, determining if possible to associate himself with them in some form or other. Everybody was talking about the Stephenson locomotives, a few of which had been imported from England, but the attempt made on the American side to make engines of this description did not at first succeed. One had been made at West Point in New York, but when it came to be put on the rails it did not answer expectations and was abandoned.

A Toy Locomotive.

Mr. Baldwin set himself to the study of the subject, and, curiously enough, was applied to by the proprietor of the Philadelphia Museum to construct a miniature locomotive for exhibition in that institution. This was just the opportunity that Mr. Baldwin required. With the aid only of an imperfect description and sketches of the locomotives which had taken part in the famous Rainhill competition in England, Mr. Baldwin undertook the work, and on the 25th of April 1831 his first locomotive was put in operation on a circular track in the rooms of the Philadelphia Museum. It was a toy affair, which pulled a couple of small cars, each containing seats for four passengers; but it did its work well, and attracted crowds of admiring spectators.

"Old Ironsides."

This toy locomotive formed the foundation of Mr. Baldwin's after-success as a locomotive builder; it gained him an order from the proprietors of a local railroad for a locomotive of an improved kind, and Mr. Baldwin carried the work through with every satisfaction to his customers. There were many difficulties in the way at that time, but he surmounted them all. He had to rely mainly upon copying the parts of a locomotive which had not then been put together; and, being unable to find mechanics competent to assist him, the work of construction devolved almost entirely upon himself. He had to make tools for the various processes, and, with all these drawbacks to reckon with, it necessarily took him some time to complete the engine; but it was ready for trial on the 23rd November 1832, and, under the name of "Old Ironsides," was put upon the railway, and did its work most efficiently. In every respect it proved to be a gratifying success; it was put into the service three days after the trial, and did duty on the railway for over twenty years afterwards.

PEGGING AWAY.

The engine attained a speed of thirty miles an hour with a train attached, and people flocked to see the marvel, and, as far as the railway company was concerned, the engine was a decided success. It attracted many passengers, and soon earned its cost; but there were circumstances in connection with the engine that gave Mr. Baldwin a good deal of trouble. For one thing, there was a dispute as to the price to be paid for the engine, and it was a long time before the builder could obtain a settlement. Further than that, Mr. Baldwin was so anxious to improve upon previous locomotives, that he was continually devising fresh pieces of mechanism, and spent so much time over the business that when he had ultimately to accept a smaller sum than he considered was his right for the engine, he felt disheartened enough to say to one of his friends, "This is our last locomotive."

But the subject of locomotive-building had got such a hold upon him that it was impossible for him to throw it off. He was fascinated by it, and occupied his mind so completely with it that he soon took it up as the business of his life. Then he began a more active career; orders for new locomotives were received, and in an engine that he completed, in 1834, for the Charleston and Hamburg Railway, he introduced improvements of a very important nature. This engine was on six wheels, one pair being drivers, four and a half feet in diameter, with half-crank axles placed behind the fire-box, and the four front wheels combined in a swivel-truck. The driving wheels were cast in solid bell metal.

A SERIOUS SET-BACK.

It would be difficult to follow Mr. Baldwin's career for the next few years, the improvements he made in locomotive construction being so numerous, but all the time he was making rapid progress, every year producing more powerful engines than in preceding years. In 1835 he constructed fourteen engines; in 1836 forty; and the same number in 1837.

Then there came a time of terrible depression. The whole country was involved in financial difficulties, which swept down many old-established houses, and for a time put a stop to industrial advancement of all kinds. Mr. Baldwin did not pass unscathed. On the strength of his growing business, and the orders he had on hand, he had involved himself in heavy expenses, and when the financial crash came he was unable to get through without making proposals to his creditors for time to cope with their claims. He offered to surrender all his property if they desired him to do this, but he put before them the alternative that they should permit him to go on with the business on the understanding that in three years he would pay the full amount of all claims with interest; and this was finally agreed upon, and the promise was in effect fulfilled, although not without an extension of two years beyond the time originally proposed. At that time Mr. Baldwin had in his employment three hundred people, but the financial depression caused him to decrease the number, and in the years 1838, 1839, 1840 fewer locomotives were built than in previous years. Meanwhile, Mr. Baldwin was devoting all his energies to the improvement of the locomotives; forming new ideas the whole of the time, taking out valuable patents, and otherwise equipping himself for the business which he knew would come to him when the affairs of the country were in a more prosperous condition.

KNOTTY PROBLEMS.

There were many difficulties to contend with in those days—the question of the effective utilisation of coal, improvements in tyres, and the attainment of additional adhesive power. In all these matters Mr. Baldwin was unceasingly active, and took out a number of patents which were of great service to the general development of locomotive building in

America. Then came his great improvement in the arrangement of the wheels of locomotives. The plan of coupling four or six wheels had long before been adopted in England, but on the short curves prevalent on American railways it was felt that something else was wanted. The wheels must not only be coupled but at the same time must be free to adapt themselves to a curve. These two conditions were apparently incompatible, but Mr. Baldwin undertook the task of reconciling these inconsistencies, engaging in the work at a time when he was involved in serious financial embarrassments, but it doubtless served to distract his attention from these matters. The problem was constantly before him, and at length, during a sleepless night, its solution flashed across his mind. The system which had long been sought for, and which subsequently, more than any other of his improvements or inventions, contributed to the foundation of his fortune, was his well-known six-wheels-connected locomotives, with the four front drivers combined in a flexible truck. For this machine Mr. Baldwin secured a patent on the 25th of August 1842. The first engine constructed on the new plan was finished in December 1842, and was sent to the Georgia Railroad, on the order of Mr. J. Edgar Thomson, the chief engineer and superintendent of that line. It weighed four tons, and drew, besides its own weight, 250 tons up a grade of thirty-six feet to a mile.

The new engine was received with great favour, and on the revival of business Mr. Baldwin received many orders for this class of locomotive. In 1843 he built twelve engines, eight of which were on the new pattern; in 1844 he constructed twenty-two engines, all of the new pattern; twenty-seven in 1845; forty-two in 1846; and thirty-nine in 1847.

Some Notable Engines.

In October, 1847, the Baltimore and Ohio Railroad Company advertised for proposals for four engines to burn Cumberland coal, and the order was taken and filled by Mr.

Baldwin with four of his eight-wheels-connected engines. In these machines what is called the rocking grate was first introduced. In 1848, there was a general agitation in favour of an increased speed. The Vermont Central Railroad offered Mr. Baldwin £2000 for a locomotive which would run with a passenger train at a speed of sixty miles per hour. This engine completely fulfilled the requirements, and led to numerous orders for other engines of a similar power. By 1851 the Baldwin Works had reached their full capacity, turning out about fifty engines per year, and having contracts for work a year ahead. This led to a considerable extension of the works, and to the introduction of a new partner. Nearly every year saw some important novelty introduced, Mr. Baldwin always keeping well abreast of the times in these matters. In 1860, the Baldwin Works turned out eighty-three locomotives, but in 1861, consequent on the breaking out of the Civil War, there was a large falling off in the production, and only forty locomotives were turned out that year. Soon, however, there was a revival of business. The demand for transportation by the Government taxed the carrying capacity of the northern railroads to the fullest extent and caused a demand for additional locomotives. The result was that the Baldwin Works turned out seventy-five engines in 1862; ninety-six in 1863; and one hundred and thirty in 1864. During the two years from May 1863 to June 1864 thirty-three engines were built for the United States military railroads. It was in 1862 that steel tyres were first used on engines constructed at the Baldwin Works; after which there was an ever-increasing demand for steel work in connection with engines.

Working to Standard.

All this time there had been a growing disposition on the part of Mr. Baldwin to adopt a system of standard gauges and templets, to which all work admitting of this process was required to be made. The importance of this arrangement, securing absolute uniformity of essential parts in all the engines of the same class, was manifest, and with the increased production it became a necessity as well as a decided advantage. Twenty years before, Mr. Baldwin had felt the importance of making all like parts of similar engines absolutely uniform and interchangeable, but it was not until 1861 that the various departments of manufacture were organised upon this basis. Ever since, however, the system has been adopted in every possible detail, with the result of an absolute uniformity and interchangeability of parts in engines of the same class, insuring the purchasers the minimum cost of repairs, and rendering possible a much larger production than could otherwise be accomplished.

Mr. Baldwin's Death.

The success which attended Mr. Baldwin's efforts suffered no drawbacks from that time to the day of his death on September 7, 1866. He had been able to establish his works on such a secure footing that his successors had no difficulty in carrying forward the organisation prosperously; the foundations were so firmly laid, the traditions of the house so distinctly understood, that further extension was inevitable. Mr. Baldwin achieved much by his own mechanical skill and inventive genius, and contributed largely to the development of locomotive engineering in America. His efforts tended to keep the country on an equality with European railway improvements, and much that he did showed great originality in adapting locomotive invention to the peculiar conditions existing on the American continent. There was no difficulty that presented itself that Mr. Baldwin did not feel himself able to cope with and overcome. He was much more than a mere man of business or an inventor; he was a man of sterling integrity and singular conscientiousness. It has been said of him that, to do right, absolutely and unreservedly, in all his relations with men, was an instinctive rule of his nature. His heroic struggle to meet every dollar of his liabilities, principal and interest, after his failure consequent upon a general financial crash in 1837, constitutes a chapter of personal self-denial and determined effort which is seldom paralleled in the annals of commercial experience.

From the earliest years of his business life, Mr. Baldwin was a philanthropist and a sincere and earnest Christian. With him benevolence was a duty and a pleasure, and he always gave according to his means. As his fortune increased his liberality increased. Philadelphia contains many monuments of his munificence. His contributions to missionary enterprises and church extension were on a very generous scale. Numerous churches in the city owe their existence largely to his liberality, and two at least were projected and built by him entirely at his own cost.

A Great Organisation.

After Mr. Baldwin's death the business which he had so capably directed was reorganised under the title of the "Baldwin Locomotive Works, Messrs. Baird & Co., proprietors."

Messrs. George Burnham and Charles T. Parry, who had been connected with the establishment from an early period, the former in charge of the finances, and the latter as general superintendent, became associated with Mr. Baird in the copartnership. Three years later, Mr. Edward H. Williams, who had been connected with railway management in various lines since 1850, Mr. William H. Henszey, who had the position of mechanical engineer, and Mr. Edward Longstreth, who had been general superintendent in the works, were admitted to the firm. The rapid developments in railway construction that were going forward caused a greatly increased demand for locomotives, and the Baldwin Works increased their output year by year. In 1866, they sent out one hundred and eighteen locomotives; in 1867, one hundred and twenty-seven; in 1868, one hundred and twenty-four; in 1869, two hundred and thirty-five; in 1870, two hundred and eighty; and, in 1871, three hundred and thirty-one. Not only did these locomotives include such as were made for the railways of the United States but many that were sent to Mexico, Brazil, and Australia. In 1869, and later, the Baldwin Company were largely successful in building special locomotives for narrow gauge railways, the engines of this class supplied to the Denver and Rio Grande Railway of Colorado being of a type that has since been largely adopted in mountainous countries.

Mr. Baird retired from the firm in 1873, and a new partnership was formed under the style of Parry, Williams, and Co., and Mr. John H. Converse, who had been connected with the works since 1870, became a partner. The product of this year was four hundred and eighty-seven locomotives. During a part of the year ten locomotives a week were turned out, and nearly three thousand men were employed. In three months, in the autumn of 1873, forty-five locomotives were built for the Grand Trunk Railway of Canada. In November in that year, under circumstances of special urgency, a small locomotive for the Meier Iron Company of St. Louis was wholly made from the raw material in sixteen working days.

Busy Years.

In 1876, the Baldwin Works began the construction of locomotives and cars for street railways, a line of work which the firm have ever since carried on with great success.

Glancing at the statistics of production during later years, we find that in 1880 five hundred and seventeen locomotives were built at the Baldwin Works; in 1888, seven hundred and thirty-seven; and, in 1890, nine hundred and forty-six. In 1887, the first locomotives for Japan were shipped, being two six-wheeled engines of three feet gauge for the Mie Kie Mines. The demand for steam motors for street railway service attained large proportions at this period, and ninety-five were built during the years 1888-89. In the last-named year the test was made to see in how short a time a locomotive could be built. On Saturday, 22nd June, Mr. Robert J. Coleman ordered a narrow-gauge "American" type passenger locomotive and tender, which it was agreed should be ready for service on his railroad in Lebanon County, Pennsylvania, by the 4th of July following. The boiler material was at once ordered, and was received on 25th June. By 28th June the boiler was completed and taken to the erecting shop, and, on 1st July, machinery, frames, wheels, &c., were attached, and the locomotive was tried under steam in the works. The tender was completed the following day, 2nd July, thus making a record of construction of a complete locomotive from the raw material in eight working days.

In 1891, the Baldwin Company made their first locomotive for Africa, and their product for the two following years, 1892-93, included as novelties, two rack-rail locomotives for a mountain railway near Florence, in Italy, and twenty-five compound "Forney" locomotives for the South Side Elevated Railway of Chicago. At the Chicago World's Fair, the Company exhibited seventeen locomotives, forming one of the finest displays of locomotive engineering ever seen. The firm began the making of electric locomotives in 1895, the first engine of this class being made for the North American Company ; and two other electric locomotives were made in the following year.

ACRES OF WORKSHOPS.

Since 1896, Samuel M. Vauclain, Alva B. Johnson, and George Burnham, junior, have been partners in the firm. The organisation as at present existing is based upon an annual capacity of one thousand locomotives, equal to three and a-third locomotives per working day. The number of men employed is over five thousand, and the principal departments run continuously the whole of the twenty-four hours of each working day. The number of buildings comprised in the works is twenty-four, covering over sixteen acres. Stationary engines of an aggregate of five thousand horse-power are employed; and there are twenty-six dynamos for furnishing power to drill presses, punching machines, shears, and cranes, and for lighting, and three thousand electric lamps are used for illuminating purposes. The consumption of coal is about one thousand tons per week, the consumption of iron one thousand five hundred tons per week, and of other material forty tons per week.

As an example of the power of some of the later engines which have been constructed at these works mention may be made of a locomotive that was constructed for the Central Railroad Company of New Jersey in 1900. It made the journey from Jersey City to Philadelphia, a distance of ninety-three miles, with a train, the average weight of which was 501,000 lbs., in two hours thirty minutes, including six stops; and the same engine, with a train of 470,000 lbs., accomplished the same distance in one hour and fifty-two minutes, including one stop; and more recently the same train made a trip from Twenty-fourth and Chestnut Streets, Philadelphia, to Jersey City—ninety-three miles—in ninety-one minutes, including eight minutes' delay, or an actual running time of eighty-three minutes.

There is no country in the world that has not some of the Baldwin engines running on their railways at the present time. Many Baldwin engines have in recent years found their way to England, and it is one of the great features of this Company's business that they can adapt themselves to any and all requirements of locomotive engineering, no matter how difficult. The success of the enterprise was in the first instance due to the great inventive ability and business capacity of the founder of the firm; but in the later developments, which have been of a stupendous and manifold character, the success has been that of a number of clever, hard-working, and exceptionally capable partners.

H. S. BLACK

THE AMERICAN "SKY-SCRAPER" KING

There is nothing more distinctive in the aspect of the life of American cities than what it is the custom to call their "sky-scraper" buildings. The largest business premises on this side of the world are small in comparison with the majority of the massive and lofty buildings, which have done so much to revolutionise the business life of the great centres of activity in the United States. Sites are of such enormous value in the heart of a great American city that it has become almost a necessity to extend building operations in an upward direction, where ample room will remain for some time to come. To add a few hundred feet to a building on the street level is a matter of such serious outlay that it was not to be wondered at that some means should have been devised of better utilising the spaces that were already occupied. And so it came about that a building enterprise was set on foot for dealing with the difficulty on scientific and substantial lines.

The First "Sky-Scraper."

It was in Chicago that this type of building was first introduced, Mr. George A. Fuller, who died in December 1900, being credited with having originated this style of edifice. To begin with, it must be admitted that the "sky-scrapers" that were first put up in Chicago were anything but architecturally beautiful; in fact, they were downright ugly, plain to a degree externally, rising up storey upon storey with the unrelieved regularity of a factory building, and with nothing imposing about them except it was their size, and in the latter respect they certainly were very wonderful.

Frameworks of Steel.

Mr. George A. Fuller is said to be the first man to utilise steel girders and rafters as structural supports for stone walls. It was the discovery of the adaptability of steel uprights to building purposes that practically solved the whole difficulty connected with the erection of "sky-scrapers." When Mr. Fuller built the first "sky-scraper" in Chicago he demonstrated beyond possibility of doubt that an entire framework of a gigantic building could be put up to consist wholly of steel girders and rafters, which, when bolted together, were capable of defying time and the elements and ordinary wear and tear more completely than the most impregnable of the old class of stone or brick buildings. With such a solid framework for the kernel of the building, it was a comparatively easy matter to run up around it an external shell of walling of any design or pattern, and to perform the entire operation from foundation-laying to roofing in a much less time than had formerly sufficed for the erection of big buildings. Mr. Fuller was, of course, scoffed at and derided, and many people protested that buildings of such a character would soon collapse; but when this first "sky-scraper" building was completed, and it was found that the structure was, in addition to being vast and commodious, as firm as a fortress, the pessimists were persuaded of their mistake, and became as enthusiastically in favour of the new type of building as they had previously been opposed to it. The proof of the success of the venture was in the rapidity with which the offices into which the buildings were divided up were occupied. There was no "jerry building" about these colossal structures. They were run up to a height of fifteen to twenty storeys in half that number of months, and under the old plan of building nothing could have been more dangerous than to have performed building feats at such a rate; but with the change of material, and the adoption of a different style of structure altogether, all this was changed at a stroke. There was no need to wait for time and the elements to settle things into their places. When the bolts and rivets that held the different parts of the framework were driven in there was nothing to prevent the speediest possible completion of the work.

Hives of Offices.

The first few buildings that were put up by Mr. Fuller were, to a certain extent, experimental, and even when the architect had proved to his own satisfaction that a building with a steel framework would answer every condition, both of science and comfort, and would at the same time admit of any architectural adornment that might be desired, there was still the favour of the public to win. It might have been, indeed, that tenants of the offices would have been afraid to venture into such labyrinthine buildings, and that the upper storeys would have been difficult to let; but the Americans rose to the occasion immediately they perceived that Mr. Fuller provided a class of building which answered their business requirements in a higher degree than did any of the old-fashioned buildings. The outside of the mammoth buildings might be depressingly plain, but that did not trouble the business people very much; what they wanted was not external decoration but inside convenience, and it was this that the new buildings insured in an eminent degree. The offices were mostly built of the same pattern, were roomy, well-lighted, and almost luxurious in their fitting and equipment. In addition to this, they provided a wonderful service of elevators, that were kept in constant operation night and day, and were so rapid in making their ascents and descents that it came to be quite as convenient to be on the fifteenth or twentieth storey as down on the first floor.

THE FIRST "SKY-SCRAPER" COMPANY.

The success attending the operations of the late Mr. Fuller led to the formation of the George A. Fuller Company, and to the carrying out of many important building undertakings, not only in Chicago, but in New York, where a branch concern was established, and also in Boston and in other cities. It was Mr. Fuller who erected the first "sky-scraper" in New York, and his later enterprises of this nature comprised the most notable business blocks in many cities. In Chicago he built the Monadnock, the Rand-McNally, the Pontiac, the Temple, the Fair, the Great Northern, the Marquette, and numerous other buildings of gigantic proportions. In New York he also was engaged in the building of many stupendous structures, and at the time of his death the number of contracts he had on hand was sufficient to have kept him actively employed for a considerable period in all the great cities of the Union. He was only forty-nine years of age when he died, and was succeeded in the presidency of the company by his son-in-law, H. S. Black.

AN ENERGETIC CANADIAN.

Mr. H. S. Black is a native of Coburg, Ontario, Canada, and was born on the 25th of August 1863. After receiving a good education in local schools, he accepted a position in a general store managed by his brother. This did not satisfy him for long, however, and while yet in his teens he moved off to the extreme west of the northern Pacific coast, and encountered various ups and downs, that served well enough as experience, but did not materially augment his means; so after a time he turned his face eastward again, and retraced his steps as far as Chicago, obtaining a situation in a wholesale woollen house in that city. He was a bright, business man, and received the confidence of his employers to a considerable degree, being promoted to the position of traveller for the firm. For ten years he continued to make regular visits to the Pacific coast, where he worked up a very valuable connection for his house. At the end of the ten years he began to think it was time to settle down to something more solid, and opened a small banking business on his own account in the State of Washington. Banking, however, was not an over-flourishing business in those days in that somewhat remote State, so he relinquished it for a general merchanting business, becoming a partner in the firm of Black & Bell, of Menominee, Michigan, and this undertaking turned out a fairly prosperous one. They opened up a branch store in Tekoe, Washington, and did a very good general business in other parts.

MR. BLACK FINDS A NEW CAREER.

About this time he became intimately acquainted with Mr. George A. Fuller, and in 1895 married that gentleman's only daughter, Miss Allon Maie Fuller, and in 1896 joined the George A. Fuller Company as vice-president. From the first the main responsibility of management devolved upon Mr. Black, owing to Mr. Fuller's indifferent health, and it did not take him long to acquaint himself with all the details of the enterprise and to push the business in new and profitable quarters. Mr. Black showed great capacity as a financier as well as a general business manager, and in the spring of 1901, when the undertakings of the Company were on such a formidable scale as to call for the employment of additional capital, he effected a combination with certain well-known capitalists and re-organised the old George A. Fuller Company with a capitalisation of £4,000,000. There was no necessity to put the stock on the market, for as soon as the extension was made known in real estate circles, there was more than a sufficient private demand for the shares to obviate any public appeal. Acting with and for the new organisation, Mr. James Stillman, president of the National City Bank, of

New York, one of the most active spirits in America's world of finance, warmly espoused the project, and with the strong support of such eminent men as ex-Mayor Hugh J. Grant, Frederick P. Olcott, H. O. Havemeyer, Henry Morganthau, and Judge S. P. McConnell, effected the reconstruction and expansion without the slightest difficulty. The new company are said to control upwards of £100,000,000 of investments in the largest and most remunerative office blocks in America. For a man who has not yet attained his fortieth year to have arrived at the distinction of being the head of such a vast undertaking says much for his energy of character and great business tact and ability. The new company is even more thoroughly equipped than the old company was. It will have such advantages in direct purchasing power that it will be able to supply itself with every possible building material at the lowest possible rates—it has contracts with the Carnegie Steel Company for the supply of large quantities of steel, and such materials as cement, stones, bricks, elevators, timber, and what not—and will absorb all the privileges which have heretofore been enjoyed by the middlemen.

An Active Man of Business.

Mr. Black is one of the most active business men within the boundaries of the Union at the present time. The interests he is called upon to manage and protect extend to all parts of the country, and entail so much direct personal superintendence that he requires to be on the constant move from place to place; but there is nothing that pertains to his duties that he suffers to be overlooked or neglected. The wonder is how he finds time to accomplish so much, and at the same time to fill a prominent place in society. He is a popular member of many clubs, takes a steady interest in public movements, participates in numerous social functions, and altogether reveals an astonishing capacity for application and work. He is as dogged in business matters as his late father-in-law was, and being in the prime and vigour of manhood there is no obstacle or difficulty too great for him to overcome. With buildings in course of construction at such different points as Philadelphia, Baltimore, Washington, Boston, Chicago, and Pittsburgh, the calls upon his time often seem too great to be successfully coped with, but he never allows himself to be worried by these things. He speeds hither and thither with perfect complacency, and has the details of every undertaking so thoroughly at command that he is always prepared to push things ahead at all points. At the present time the new company have in hand in Chicago the erection of vast structures, including a new Tribune Building, the National Life Insurance Building, and the Raymond Building. In Washington they are erecting a new Willard's Hotel on a magnificent scale ; at Pittsburgh they are putting up what when finished will be the largest office building in the State for Mr. H. C. Frick ; at Philadelphia they are erecting a handsome block which will be known as the Merchants' Warehouse ; at Boston an immense block of offices, which will be called the Huntingdon Chambers, is being run up by them ; and in New York they are engaged in the construction of many new buildings of the "sky-scraper" class, which will add greatly to the imposing aspect of the city, including the Broad Exchange Building, said to be the largest habitable structure in the world, valued at £1,600,000 ; the Importers' Building, the Tontine Bulding, and the Jewellers' Building, a new Union Club, and a new Park Hotel. The vastness of the operations thus indicated cannot possibly be realised by Europeans who have no knowledge of what these mighty structures mean, but there is some probability that "sky-scrapers" will one day make their way to Europe. At the late Paris Exposition the first prize was awarded to the Fuller Company for its exhibit of the model of the Broadway Chambers, New York, and if ever the demand arises on this side of the Atlantic for such immense buildings Mr. Black may be trusted to be ready to fulfil any contract on the shortest possible notice.

CORNELIUS N. BLISS

A MERCHANT PRINCE AND STATESMAN

In America even more than in England the prominent man of business often becomes not only a politician, but a statesman, which is a very different thing. All roads to eminence are open to the clever American, indeed, and when a man has worked his way up from humble obscurity to business fame and riches, the opportunity is generally offered to him of becoming a power in the political life of the country as he has previously been in its business life. Only a small proportion of them, however, yield to the solicitations of the politicians, but when they do it is frequently a successful experience.

This sort of double success has fallen to Mr. Cornelius Newton Bliss, the New York merchant, who, after a long and honourable business career, was induced to accept the position of Secretary of the Interior in President M'Kinleys' first Cabinet. It was with great difficulty that he was induced to accept this honourable post, having no ambition for public life, but the office was pressed upon him with so much anxious solicitude, and his filling it formed such a special service at the time to the Republican party, of which he had always been a resolute and unwavering member, that it was almost impossible for him to decline the distinction.

Mr. Bliss is descended from an English family which settled in Massachusetts in 1636. They came from Devonshire, where they had lived the lives of sturdy, God-fearing Puritan yeomen, until their right to worship in their own way was no longer permitted to them. It was then that the Blisses sought the shores of America, where, far from the homes that had been sacred to them and the land they had tilled and thriven upon, they started life afresh, as so many other English families had done, for conscience' sake.

It was from this sturdy stock that Cornelius N. Bliss sprang. The family were living at Fall River at the time of his birth, and while he was still an infant his father died. Then came the period of struggle and hardship, and young Cornelius had to get his schooling as best he could. He attended the public school of Fall River, and was a diligent and painstaking student; but the re-marriage of his mother had the effect of taking him away from the scenes of his boyhood, and opening up a new life for him. His mother had gone to reside at New Orleans, and to that city Cornelius also drifted, and after a short term at the New Orleans High School he entered the office of his stepfather, who was a dry goods merchant, and there acquired his first knowledge of business affairs. He showed an immediate aptitude for mercantile matters, being remarkably clever in grasping details, and in understanding the nature of the goods in which his stepfather's firm dealt. It was soon evident that young Cornelius was gifted with a strong business bent, and that he would be able to succeed in that career as soon as the proper opportunity presented itself.

He did not remain long in New Orleans—the old French-American city was too slow for one of his active spirit; so he, after a time, took leave of his mother and went back to the North, settling in Boston, where he obtained a position in the house of James M. Beebe & Co., at that time one of the leading dry-goods importing and jobbing firms in the country. He made himself so useful in this establishment that advancement came quickly to him, and while yet in early manhood he was admitted a partner in the firm.

STRIKES BOLDLY OUT FOR HIMSELF.

So matters went on until 1866, when he made a further move, relinquishing his position in his old firm in order to join the dry-goods commission house of J. S. & E. Wright and Co. This proved to be his first real stepping-stone to fortune. He had made himself thoroughly acquainted with every department of the dry-goods business, had a complete knowledge of textiles of all descriptions, and knew the requirements of every market. The manufactures of the United States were at that time in the first flush of their development. Makers of cloths were just beginning to discover that they could produce goods from their own looms that would enable them to compete not unfavourably with imported fabrics, and, thanks to the protective tariffs that prevailed, the opportunity given to home products was very exceptional. No man understood the business position better than Mr. Bliss, and in the new field that he entered as a member of the energetic and well-known firm of J. S. & E. Wright & Co. he found a sphere of work that exactly harmonised with his business genius. He made the wares of the firm known throughout the length and breadth of the land, and devoted himself to the extension of the enterprise with unflagging zeal. And yet Mr. Bliss was not of the rush-and-tear type of business man—he was forceful and yet cautious, go-ahead and yet deliberate; he always looked before he leaped, but when once he had made up his mind to adopt a certain course he drove the business through with a quiet determination that was sure to tell. He preferred to miss an opportunity or two rather than to make a mistake. But he was quick of judgment for all that, and was the soul of honour in all things. Sharp practices of every kind he abhorred. He would either do business in an open, straightforward way or not at all. In every relation of life he acted with a strong sense of duty, and business men came to respect and almost venerate him. His word was never given at random, but once pledged was to be relied upon. These high commercial virtues might be regarded as old fashioned by some of the more restless and less dignified spirits of the business world, but they were virtues that lasted, and were capable of surviving through trials and depressions that would sweep the less scrupulous down. Mr. Bliss was always a manly man. Thrown upon his own resources from an early age, he regarded his responsibilities and obligations, whatever the position was that he was filling, as things of far too serious import to be trifled with.

FURTHER BUSINESS SUCCESSES.

The firm of J. S. & E. Wright & Company prospered amazingly under Mr. Bliss's skilful direction, and when the senior partner died the partnership was reorganised as Wright, Bliss, & Fabyan, with houses in Boston, New York, and Philadelphia. Mr. Bliss took charge of the New York establishment, and from that time onward the progress of the firm became more rapid than ever. Alert to every varying circumstance and surrounding, keeping a keen watch upon the exigencies of fashion, and ever wary of the developments that were taking place in other countries, the business increased enormously year by year. Times of panic and disaster occurred now and again, but Mr. Bliss's foundations were firm and secure, and never a time of difficulty found him unprepared. Thus, through bad years and good years, through periods of national trial and periods of national triumph, the great house, over whose fortunes Mr. Bliss has presided for so many years with distinguished success, has gathered to itself an amount of business that has yielded millions to the partners, and has won for Mr. Bliss a name of the first importance in the world of trade and commerce. There is not to-day a city or a village within the boundaries of the Republic where the goods of the firm are not more or less known.

A TRUSTED MAN.

It was in the nature of things that Mr. Bliss should have been entreated from time to time to lend his name, approval, and aid to public work of various kinds, and it is gratifying to find that he has never ignored any reasonable claims in this respect that were made upon him. Without being anxious to participate in public affairs, he has had a sufficient feeling of good-citizenship to give personal help when it has been most needed. In promoting the welfare of the leading charities of New York he has never spared himself either in person or in purse. He has contributed nobly to their funds, and, so far as his time would permit, has given his services freely to helping on the work of management. In the advancement of the numerous educational agencies, museums, and institutions Mr. Bliss has shown a just appreciation of their varied requirements, and they have often been indebted to him for wise counsel as well as financial assistance. Show or ostentation of any kind is repugnant to Mr. Bliss's feelings, and he is never guilty of a blunder of taste. He is safe, solid, and trustworthy. As a member of the Union, the Century, the Union League, and other leading New York clubs he is an important social personage, as a matter of course, and his advice is often eagerly sought; but in the chronicles of the fashionable world, in which the goings and comings and daily life incidents of the stars of the social firmament are set down, it is not much that will be found that relates to Mr. Bliss.

MR. BLISS AS A POLITICIAN.

In America most men are politicians, whether they go into politics or not, and if more Americans would enter political life with the high purpose that characterised Mr. Bliss's political attitude it would be greatly to the advantage of the country. As far as his own party is concerned it would be impossible to accuse him of disloyalty, and yet there have been times when he has seemed not to be running quite in harmony with his leaders. The fact is, that Mr. Bliss has his own unshakeable convictions as to what is right in politics as in business, and for rule by "bossism" he has no affection. He judges public questions on their merits, apart from the serving of personal ends and ambitions, and if his party cannot go the way he would like it he quietly stands aside until a more reasonable feeling prevails. So he is an essentially strong man when his aid can be secured; but a mere thick-and-thin party man he is not. Purity of Government is the sheet anchor that he stands by, whether in national or municipal affairs; and when, after lending hearty aid to the Republican party in its efforts to secure the return of Mr. M'Kinley in 1896, he was offered a Cabinet position the act was looked upon as a fitting recognition of valuable work, and insured in the office to which he was called the certainty of an absolutely honest service.

A Trying Term of Office.

The post of Secretary of the Interior, which Mr. Bliss accepted, is one of the most onerous in the Cabinet. The duties are of a more comprehensive character than those of an English Home Secretary, calling for the exercise of special tact and talent in the reconciling of many conflicting interests. Corporations as well as individual citizens come under his sway; the Indians are his wards; he has the control of the public lands, and he is called upon to safeguard the national purse while keeping an eye on and ministering to all items of just national expenditure. Seldom has this responsible office been filled so adequately as by Mr. Bliss, who not only brought his great business acumen to bear upon the work that devolved upon him, but added thereto a fine quality of humanity that was highly appreciated. Everything ran smoothly. There was no ruffling of this person or of that, no vexatious disputations, no conflict of any kind. But there was firmness along with kindness, and an absolute equity in all things. It was an unusually trying time because of the exceptional strain consequent upon the outbreak of the war with Spain. Up to the last Mr. Bliss believed in the possibility of maintaining peace, as did Mr. M'Kinley, but when he saw that there was no help for it, and that it was the duty of the United States Government to teach Spain a salutary lesson in international manners, he was as warm an upholder of the war policy as any of his associates. And the war came, and was carried through to the bitter end, Mr. Bliss giving his full support to the Government policy throughout.

A Lofty Ideal.

Mr. Bliss is still in the prime of natural and physical vigour, and although it is hardly probable that he will take upon himself the cares of office again, he can always be counted upon by his party for energetic aid, freely and unselfishly given, so long as the Republican policy is in tune with his own ideas of what is right and what is practicable. Could the United States only command the services of such men as Mr. Bliss continuously in the various offices of Government it would be much better for the country; but, unfortunately, the professional politician does not always take such a lofty view of his political obligations as Mr. Bliss does. Some men seem incapable of entering politics without sacrificing the qualities which go to the making of a dignified gentleman. The strain of conflict is too severe for them. It begets meanness of mind. As regards Mr. Bliss, however, he brought to his political task such a fine sense of rectitude that he preserved his dignity and self-respect untainted. The office honoured the man, and the man honoured the office. His career as a business man had been regulated according to principles of perfect honesty and fair dealing, and he showed both his political friends and his political foes that it was possible to conduct the affairs of a responsible Government office on the same system.

Mr. Bliss is still a prominent figure in the great commercial world of New York; the house with which he has been associated for so many years occupies extensive quarters in the centre of what is called the "dry-goods district" of the city; and in controlling the destinies of the business he has displayed talents that would have been conspicuous in whatever career he might have chosen to exercise them. To have risen to eminence from a comparatively humble position, and to have amassed a fortune in an ordinary business groove, without having recourse to the many other tempting methods of money-making that present themselves in a new, active, and enterprising country like America, is something to be proud of, and the people of the United States cannot fail to bestow a higher respect upon a man who advances the general industry of the country in his strivings after fortune than upon the greedy crowds who gamble in Wall Street.

THE "BONANZA" KINGS

JOHN W. MACKAY AND HIS PARTNERS

In 1849, when the discoveries of gold in California turned the thoughts of so many people towards the Western El Dorado, and fortune-seekers from all parts of the world flocked to the golden land, four adventurous spirits struck up a friendship in San Francisco that was destined to be fraught with marvellous results. These men were John William Mackay, James C. Flood, William S. O'Brien, and James G. Fair. They were indeed "brothers in distress," for they were, in the language of the mining camp, "stone-broke." Still they were a quartette of good fellows, ever ready to share their last coin with each other, and primed for any sort of enterprise that was likely to give promise of gain. They had come together in San Francisco from different parts of the world, and having all met with bitter disappointment, tried to console one another with dreams of better luck.

It was rough living out at the Golden Gate in those days. Society was in a state of chaos; law and order were matters for Vigilance Committees and Judge Lynch rather than for the officers of Government, who were so few and so unprepared for the work they had to deal with that they were of little use. Friendships were necessary for self-protection therefore, and when Mackay, Flood, O'Brien, and Fair put their heads together and formed a sort of co-operation organisation, it was felt by their old chums of the diggings that there was business in the wind.

TALES OF HARD LUCK.

After the first rush to the mining camps a great overflow of unsuccessful humanity made its way to San Francisco, and for one tale of success there were a hundred stories of failure to be told. It was an exciting, often a heartrending, time. Over a hundred thousand men had invaded the sparsely-populated territory of California from the other side of America within a few months. The people poured into San Francisco in eager hordes day by day by every possible route—in waggons which had crossed through the passes of the Rocky Mountains, in all sorts of rude contrivances by way of the Isthmus of Panama, and by sea round by Cape Horn. Such a nondescript crowd had never been gathered together probably in the history of the world. They came in with their meagre belongings, hungering for the gold; they went out again in thousands day after day into the mountain ranges where the precious metal was supposed to be hidden; and then, day after day, crowds came back again, ragged, disconsolate, despairing, and in the lawless city that was growing up mushroom-like on the shores of the balmy Pacific turned to any kind of occupation that presented itself, and quarrelled and fought and struggled like the creatures of the forest.

A BOLD ENTERPRISE.

Mackay and his friends held their own, however, in this pandemonium, and a little more. Adversity taught them a few useful lessons, such as caution, the value of keeping their own counsel, and decision of action. Mackay was, perhaps, in the worst plight of any of the four, for he belonged to the ever-swelling army of returned explorers who had failed to find the alluring metal; but he was a light-hearted, resourceful, young Irishman, who took his troubles easily, and always looked forward hopefully for better days. For a while he took up with any odd job that presented itself, but he was shrewd and watchful for opportunities, and never altogether lost heart. Flood and O'Brien were speculators in a small way—that is, their capital was smaller than their courage; but little by little they contrived to make a little money, and one day when John William Mackay, who had for a considerable time been carefully considering the gold-mining problem, put before Flood and O'Brien a scheme for starting operations out in Nevada, beyond the Sierras, they were rather inclined to take up the idea. They knew that Mr. Mackay knew what he was talking about, at all events, and was hardly the man to recommend an enterprise that did not give promise of fair success.

MACKAY'S YOUTHFUL CAREER.

A better comprehension of the situation that then presented itself will be obtained if we give a short account of what Mr. Mackay's experience had been up to that point. He was born in Dublin on the 28th of November 1831 of Scottish ancestry. His parents belonged to a humble sphere, and John William Mackay's boyhood was passed amidst hardships and struggles which were the common lot of the poor Irish at that period, when famine often held the land in its grip, and the people had much less freedom of action or scope for effort in their own land than they have to-day. The Mackays fared so badly that by the time their son had reached the age of ten they resolved upon crossing the Atlantic, as so many thousands of their compatriots had done before them, and try their luck under the Stars and Stripes. They went inspired by no particular ambition, and without any high hopes. Friends and relations welcomed them on their arrival in New York, and it was in that city that the family settled down. But the Mackays did not find things very rosy even in New York. The father obtained a position that barely yielded him wages sufficient to keep his family upon. To make matters worse, he died after they had only been two years in America, and his widow found herself almost without means, with the responsibility of providing for and educating her young children. It is to her credit that, in spite of the difficulties by which she was surrounded, she contrived to let John William go to school for a while—long enough to enable him to pick up the rudiments of a fair education, for the lad was bright and sharp and a good worker. He felt, however, that it was for him more than the rest to keep the family together, and to earn money for their requirements, and he set himself to accomplish this with the energy that was then and ever afterwards characteristic of him. Of course, he had to learn a trade of some kind. Little could be achieved without that; so he apprenticed himself to the shipbuilding business, entering a firm that was largely engaged in fitting out sailing vessels for the Pacific trade. He worked steadily at this occupation for a year or two, and was looked upon as one of the most promising of apprentices.

THE GOLD FEVER.

Then the hope of becoming a prosperous shipbuilder was suddenly annihilated by the news of the great gold discovery in California. John William Mackay caught the fever badly. There was nothing for it but his throwing his shipbuilding tools down, and hastening with all speed to the West. It was with difficulty that he could bring himself to separate from his mother, with whom he had struggled and worked in hopeful sympathy all through the days of his boyhood, but when he thought of the possibilities of winning gold that might make her happy and comfortable for the rest of her days, the conflict between his duty to his home and his desire for golden adventure had to be ended in favour of his going Westward. He was only eighteen years of age at this time, but, full of spirit, physically strong, and capable of great exertion and endurance, he set out, firmly convinced that he would ultimately succeed. It was a long and a dreary journey in those days from the Eastern seaboard across the three thousand miles and more of rugged country, much of which was unsettled and desert, that had to be covered before the Golden Gate could be reached; but young Mackay thought only of the fortune that he hoped to win—the dangers and hardships by the way were not counted. There was much to stimulate him in the earnest wish that he cherished of being able to provide for those he had left behind him in New York, and he plodded manfully on until at last the realm of gold was reached.

Dreams and Reality.

When he arrived at the gold-mining camps he found things much different from what he had anticipated. The work was harder and the life rougher than he had expected to find them; still, nothing daunted, he staked his claims like others, and worked from morn till night, first at one, then at another, but without meeting with much success. Now and again he struck a vein, but it quickly gave out, without yielding him much. But he was persistent and hopeful, and when one claim failed him proceeded to another, his pick and shovel never being idle for long. It was a desperate and trying business, and often he had to content himself with working for miner's wages in order to live. For a few years he kept resolutely at the digging, acquiring much valuable experience, if but little of the precious metal. This experience was, however, the best capital that he could be providing himself with, for knowledge is power in gold-mining as in most other things. He had strength of character sufficient to resist the temptations by which he was surrounded, but kept steadfastly to his purpose, working unceasingly and hoping unceasingly. From the wild, impetuous life of the camp, so truthfully depicted in Bret Harte's early sketches of those lawless times and people, Mr. Mackay held firmly aloof, and while the ordinary miners were amusing themselves in gambling and drinking he was carefully studying the conditions of the strata, and when at last he turned back upon San Francisco, and had to confess to himself that so far his quest for gold had resulted in humiliating failure, he was by no means in a despairing mood. He still believed that his day of good fortune would come, and it was the knowledge that he had gained that kept this conviction in his mind. When he reached San Francisco the one conclusion that he had arrived at was that it was not in the old fields, in which he had worked so hard and so fruitlessly for some years, that success would have to be looked for, but in new fields that had not yet been hit upon. Where those new fields were he was not able all at once to determine; but in the quieter days that supervened, when he was in a position to think the whole question out on fresh lines in his humble lodgings in the metropolis of the Pacific, and to compare notes with other returned wanderers from the various gold-mining camps, new and old, he had more food for thought than had ever been served up to him before. He was now able to take a sort of bird's eye view of the mining situation generally, and when he got the different objective points into what seemed to him to be a correct perspective, he felt that he had better ground to work upon. It was then that he surprised his friends by informing them that it was in Nevada that he was determined to resume his hunt for gold.

Trying for a Fresh Stroke of Luck.

It was in 1860 that Mr. Mackay set his face eastward again, and proceeded to Gold Hill, Nevada, buoyed up with a new hope, based on his later self-communings. His friends bade him a cheery good-bye and wished him good luck, and the understanding was that if he came upon a "find," some partnership scheme was to be formulated. Unfortunately, Mackay was out of his reckoning again in his first experiment in Nevada. Gold Hill proved an undesirable investment, and the plucky prospector had to go back to the drudgery of mining for a while. But a restlessness had been awakened in him, and he could not accept a position of mere service for long. He was attracted to the Comstock lode, in the Virginia range of hills, and, staking claims at the northern end of it, began to sink a shaft at Union Ground. At this point, if he were to give his new enterprise a fair chance, it became necessary for him to have capital. The money he had brought out with him or earned was practically exhausted. So he referred to his friends in San Francisco, and in a very short time afterwards, relying on his highly favourable reports, Messrs. Flood and O'Brien found sufficient capital to carry the work forward. A Mr. James C. Walker, an experienced practical miner, was also taken into the affair, and from this beginning there gradually grew up the famous "Bonanza" mining company which was to eclipse in the magic of its operations every other concern of the kind. The gold and silver they came upon were in such dazzling quantities that the four partners were made millionaires within a very short time.

The Great "Bonanza."

The output of this splendid property almost exceeded belief. There was an end for ever of the vague dreaming that for many years before Mr. Mackay had been indulging in. They were realities that he had to deal with now. In six years the Comstock yield was over £60,000, and John William Mackay was the "Silver King." Mr. Walker did not remain in the firm after 1867, and it was then that Mr. Mackay's old friend, James G. Fair, was put into the fourth place in the partnership. The leading spirit of the enterprise, however, was Mr. Mackay. It was he who had practically been the discoverer of the rich mineral deposits, and the operations were under his skilled guidance through the busy years of the enormous yield. He advised the purchase of adjoining claims out of the earlier profits, and in this way the company greatly enriched their possessions. It was he also who insisted on the mines being sunk to a greater depth than mines had ever before been worked at, and again the result was a magnificent augmentation of the company's wealth. Mackay, O'Brien, Flood, and Fair all became multi-millionaires. Mr. Fair for a considerable period represented Nevada in the United States Senate. Messrs. O'Brien and Flood became conspicuous in the public life of the Pacific Coast, their names being associated with many distinguished acts; but it has been reserved for Mr. Mackay to occupy the most conspicuous figure of the four in the world, his name, enterprises, and charities being known in Europe almost as well as in America. It is a sad commentary though to this story of splendour to find that Comstock, the first discoverer of the famous lode which bore his name, was reduced to beggary and died a suicide's death, without a friend to mourn him. Comstock was of the rough-hewn type to whom fortune is a curse rather than a blessing. He could only make the vulgarest use of the wealth that originally came to him, and was guilty of acts of folly that made his ruin but a question of a short time.

AFFLUENCE AND LEISURE.

Mr. Mackay, rich in these days beyond the dreams of avarice, is able to take a hand from time to time in enterprises of importance and magnitude, and continues to be one of the great money-makers of the age. He founded and carried into a flourishing condition the Bank of Nevada in San Francisco, in spite of a loss of £2,000,000 in 1887 through the defalcations of an official. In 1884 he and Mr. James Gordon Bennett established the Commercial Cable Company and the Postal Telegraph Company, of which he has since been the head. There was a time—in 1885—when he might have been elected United States Senator for Nevada, but he declined the nomination, having no wish to engage himself in political strife. Mr. Mackay is a man of broad sympathies. In religion he is a Roman Catholic, and is an active supporter of that Church and of many charities connected therewith.

In the capitals of New York, London, and Paris, Mr. Mackay is one of the best known figures in society. He owns a palatial mansion in New York, has a residence in San Francisco, and others in Paris and London. In the various incidents of social life, and in the leading movements of the time, he evinces a lively interest, although he prefers the quietude of home life to anything that savours of ostentation. Able to gratify any and every whim and caprice that could arise, he lives a simple existence and is greatly liked by those who are admitted to close intimacy with him. He is a member of more clubs than he could probably enumerate, but for all that he spends very little time at any of them.

Mrs. Mackay.

To speak of Mr. Mackay without referring to his accomplished and cultivated wife would be a serious omission. She is a daughter of Colonel Daniel C. Hungerford, who was a veteran of the Mexican and Civil Wars, and was married to Mr. Mackay in 1867, when he was already a millionaire. Mrs. Mackay has for many years been a conspicuous Society queen in London, Paris, and New York, and at her assemblies may be seen gathered together the leading personages of the time of the capital in which she may happen to be residing. Mrs. Mackay's mansion in Carlton House Terrace is one of the brightest houses in London. The marble staircase alone cost £60,000, and the art treasures contained in the different rooms represent fortunes untold. Everything that the decorative arts could accomplish in the way of beautifying the walls, ceilings, and floors of the great house has been done. Mrs. Mackay's jewels are worth a king's ransom, and are altogether too numerous, too magnificent, and too costly for any attempt being made here to describe them. Meissonnier painted Mrs. Mackay's portrait, but Mr. Mackay would not have it hung because of its unlikeness to the original.

DARIUS OGDEN MILLS

THE MILLIONAIRE PHILANTHROPIST

WHEN the parents of Darius Ogden Mills, who were humble people living out in North Salem, in Westchester County, in the State of New York, gave their boy his first name they possibly had a thought of the riches and splendours which the word recalled, but it is hardly probable that they ever imagined their son would in the fulness of time become rich in tangible wealth and richer still in the good name and renown that he would earn. Yet thus it has proved, and no doubt the careful and pious training which they gave him in the days of his boyhood was mainly answerable for these happy results.

Darius Ogden Mills was born on the 25th September 1825, and was educated at Salem Academy and at Mount Pleasant Academy, Sing Sing, New York. On completing his education he obtained a clerkship in a New York store, and there obtained his first introduction to business life. At one time it had been seriously contemplated that he should connect himself with agricultural pursuits, but the boy's mind was set upon a commercial career, so the idea of making a successful farmer of him had to be abandoned. In New York he toiled hard and earnestly for six years, and obtained a good deal of helpful knowledge of business matters, including a mastery of the principles and science of accounts. The position, however, did not satisfy him; it did not get him along fast enough; so he began to cast about for more responsible duties, and at the age of twenty-two migrated to Buffalo, a city which was then rapidly developing, and was fortunate enough to secure the post of cashier in the Merchants' Bank of Erie County there. This was in 1846. Devoting himself ardently to his new work, he began to acquire the knowledge of finance which at a later date served him so well. The bank did a good business, and he was completely trusted in all things. No cashier could have served more faithfully or been more worthy of confidence. There was nothing showy about him—no bounce or bustle—but just that quiet, methodical, cautious, plodding way which goes far and has staying power. It was a welcome apprenticeship for him, and he made the most of it, acquiring a third interest in the bank within a very short time.

Then, in 1849, when the great gold fever broke out in California and spread like wildfire over the land—the fever which caught so many of the Americans who have since become multi-millionaires—young Darius Ogden Mills, sitting at his desk in the Buffalo bank, was smitten, and felt the sudden impulse to be up and away to the region of gold. But in his case it was not so much a matter of gold-hunger as of business-hunger, and when he started out for the long journey across the continent of America it was not with any wild notion of digging for gold, but with the more sober purpose of starting a financial business in one of the cities that the rush of people would waken into sudden growth out in California. Mr. Mills did not, as most men bent on commercial advancement would have done at this period, go forward to San Francisco, but settled in the quieter but still important city of Sacramento.

Mr. Mills had a little capital, but not much. What he had he probably thought would go farther in Sacramento than in San Francisco. At first he set up as a merchant and dealer in exchange, and in course of time, by cautious dealing and shrewd handling of the money, he had contrived to extend his operations considerably and to make large profits, making as much as £8000 during his first year in Sacramento. It behoved a financier in those regions and in those days to be watchful of his interests or his enterprise would soon be wrecked, for speculation ran wild for most of the time, and the customers of a financier were not always very scrupulous. But there was a quiet dignity about Mr. Mills that won the respect even of the rough miners, who came down into the cities to spend their gold when they found it, and drifted into them again when they wanted money for future operations. With his first year's gains Mr. Mills went to New York and bought a large stock of implements, clothing, and general merchandise, which he had sent round by ship to Sacramento, and the return he reaped from this investment provided him with a considerable surplus of capital.

Mr. Mills did so well in Sacramento that he ultimately established there the bank of D. O. Mills & Co., which to this day is one of the leading financial houses of that city, and is still controlled by him, and is the oldest bank institution in California. Then for a number of years he enjoyed prosperity and amassed a fortune. Later on he went to San Francisco, and founded there the Bank of California, of which he was the president. This was in 1864. Success crowned every undertaking that he subsequently became connected with; the name of D. O. Mills represented stability and honest dealing to the people of the Pacific Coast, and they readily put their money into the undertakings that were backed by the guarantee of his strong personality. As an instance of what Mr. Mills' name really stood for in those days, it is only necessary to mention the fact that when in 1867 he retired from the presidency of the Bank of California his successor landed the house in difficulties, from which recovery seemed impossible. In this time of crisis Mr. Mills took charge of the bank once more, and, keeping at the head of it until 1878, not only succeeded in pulling the bank out of the mire, but placed it on a more sound footing than it had ever been upon before.

Everything that Mr. Mills took in hand seemed to prosper, and he ventured upon numerous affairs apart from his banking businesses. Amongst other things, he became interested in the mining developments of the Comstock lode, buying up a vast quantity of timber lands, and securing the control of the only railway leading thereto. Another fortunate speculation of his was a large holding of shares in the leading quicksilver mines of California.

In 1880, after a successful career in California of over thirty years, Mr. Mills returned to New York, his old home, and invested largely in real estate. He also interested himself in various financial affairs, which had their headquarters in the Empire city, and is said at the present time to be a director in no fewer than eighteen large corporations.

The name of Mr. Mills has, however, in later years been prominently linked with many great philanthropies, his giving for charitable objects being of vast extent. He is not one to parade his gifts or to keep them in narrow channels. It has been the great work of his recent years to devise projects by which poor people might be put in the way of better living and housing, and the great Mills' Hotels, which he has erected in the heart of New York city for the accommodation of men, are probably the highest realisations that have yet been attained in this direction. Each of these hotels will lodge 1500 men. They are ten storeys high, and provide every man with a private room, comfortably furnished, with the best service of all kinds. Tenpence a night is all that is charged for the lodging, and as regards food, washing, and so forth, the prices are put at the lowest possible paying limit. Mr. Mills got the idea from the Rowton Houses in London. Being in London some years ago, and happening to be associated with Lord Rowton on the directorate of a London railway, he became interested in the Rowton buildings, and investigated them thoroughly. On his return to New York he proceeded to formulate plans for his working-men's hotels, and these comfortable and well-managed homes are now in the full tide of success.

Mr. Darius Ogden Mills is a man who is never weary of well-doing, and few men set their ideals so high as he. New York regards him as one of its most esteemed citizens. He is an excellent type of the self-made man, who in making his millions has always kept his heart and mind alive to the struggles and needs of his less fortunate fellow-creatures. In spite of his great wealth, he has lived a life of simplicity and economy, and is an enemy to wasteful expenditure of all kinds. It was intended that the two great Mills' hotels should be object-lessons in that direction. He was anxious to encourage men of limited means to practise economy by enabling them to live comfortably at a very small outlay. "There is more waste in America than in almost any other country," he says. "Persons of small means, as well as those of large means, spend a great deal more money than is necessary to supply their needs. The value of money is not generally appreciated." By erecting his hotels he has done much to bring about better conditions, and hundreds of men who were previously unable to save anything can now, thanks to the economical living which these hotels insure, put by a sufficient portion of their earnings to provide for "the rainy day" that comes to most people sooner or later.

JAMES GORDON BENNETT

THE NEWSPAPER KING

JAMES GORDON BENNETT, the present proprietor of the *New York Herald*, succeeded to one of the most valuable newspaper properties in the world on the death of his father in 1872. That property has since been largely augmented in value, owing largely to an adherence to the traditions of editorship and business management inaugurated by the founder, and partly to the natural growth and development of things in the United States in the three decades that have passed since the first James Gordon Bennett passed away. To gather anything like a correct view of what the proprietorship of a newspaper of the influence and popularity of the *New York Herald* means—what it entails, and what it confers—it will be necessary to go back to the history of the journal in its earlier days, and to do that it will also devolve upon us to say something about the remarkable career of the elder Bennett. The facts will be found interesting, and in their way unique.

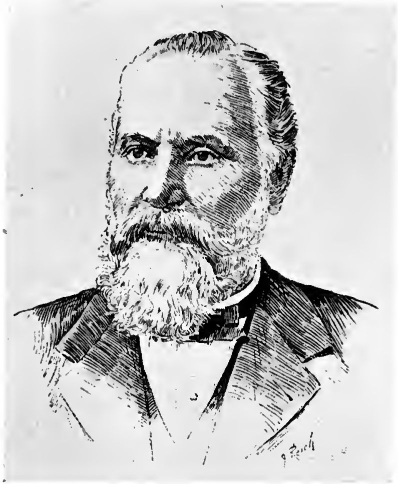
A SUDDEN DISAPPEARANCE.

James Gordon Bennett, the elder, was born in Keith, Scotland, in the year 1800, his parents being such devout Roman Catholics that they destined their son almost from his birth for the priesthood, and it was with this view that he was educated at the Blair Seminary, Aberdeen. In this case the father and mother "proposed," however, and the son "disposed," for in 1819 young Gordon Bennett suddenly disappeared from school, and set sail for America, thus completely frustrating the hopes of his parents. But the youth

JAMES J. HILL

THE RAILWAY MAGNATE

JAMES GORDON BENNETT



CLAUS SPRECKELS

THE SUGAR KING

was right. There was not much in his nature that would have harmonised with the subdued life of a Catholic priest. He needed a more active career, and in betaking himself to the United States took the best possible step towards insuring one. He seems to have had some literary ambition, and after his arrival in New York made serious attempts to obtain recognition as a poet. Of the value of his poetical exercises nothing survives to enable us to judge of their merits, but they do not seem to have been sufficiently striking to yield him any substantial return.

James Gordon Bennett was almost without means when he landed on the shores of the New World; and, without letters of introduction or friends, he was for a time put to great straits and endured many privations. Every door seemed to be closed against him. Poets and poetry were not in demand in a practical country like America. If he had had a mind to sweep an office or pull a hand-cart he might possibly have obtained some employment that would at least have kept him from starving. As it was, he became so poor that for two days he went without food, and was only relieved by finding a quarter of a dollar in the street. This was in Boston, which was then, as it was later, the chief literary centre of America.

At this trying period of his career Mr. Gordon Bennett introduced himself to Mr. William Wells, an Englishman, and a member of the publishing firm of Wells & Lilly. This gentleman befriended the young Scotsman to the extent of giving him a position as proof-reader, which, without being particularly remunerative, yielded him something to live upon. Nothing better presented itself for some time; meanwhile, the proof-reader continued to employ his leisure in "cultivating the muses," and for certain effusions, descriptive of rambles around Boston, was much complimented by certain literary gentlemen of the city, and a critic of that day and place went the length of saying that the verses "really showed a poetic habit of feeling with an occasional happiness of expression." It was not in the nature of things that after being "damned with faint praise" of this description he should care to keep up the "poetic habit" for long. So he relinquished poetry for prose, and became an adventurer in a field in which he was one day—but not yet awhile—destined to distinguish himself.

Dark Days.

But James Gordon Bennett, the elder, had many dark days to pass through before he was able to make any particular mark, even upon such prose as was at that time supplied to the newspapers of the United States. He seems, after breaking away from poetry, to have had plenty of confidence in himself, but he found it difficult to inspire confidence in others. Journalistic ventures indeed were not quite to the mind of American capitalists in those days. They involved so much that the capitalists could not comprehend—seeming to them to partake too much of what in recent times it has become the custom to call "wild-cat schemes"—that it was not surprising that they fought shy of such undertakings. For full sixteen years after setting foot on American soil James Gordon Bennett was desperately active but miserably poor. He is credited with having during that period embarked upon no fewer than five different newspaper enterprises, all of which came to grief through want of capital. It was a useful apprenticeship, however, though an uncomfortable one. Many sneers were cast upon the young Scotsman, but people might flout and jeer to their heart's content, he knew what he was aiming at, and, with the persistence which has been a leading Scotch trait since the time when Bruce received his famous historic object-lesson from the spider, he plodded along, and from the ashes of every failure fanned a new hope into flame. He certainly proved himself during these arduous years a man of capacity as well as of tenacity, and wrote voluminously, if not luminously. There was no subject that he feared to tackle ; politics he revelled in, catching the spirit of the times, and entering eagerly into the rough journalistic conflicts then indulged in; personalities he likewise dabbled in jauntily, regardless of consequences, which were occasionally unpleasant; commercial topics he also made peculiarly his own, by a liveliness of treatment that aroused comment, if it did not help trade; and when it came to such serious matters as political economy he was valiant indeed. To be capable of grappling, even in a moderate way, with such a variety of subjects as these implied talent in no small degree. Once or twice failure disheartened him for a brief space. During one of these intermissions he attempted to found a commercial college; during another he thought seriously about taking up lecturing on political economy.

At length it appears to have dawned upon him that if he were to succeed he must strike some individual note that would startle people. The wonder is that he had not thought of this before. He went to Washington for the *New York Courier and Inquirer*, and began a series of letters from the capital, after the style of the letters of Horace Walpole, into which he infused many entertaining and some astounding personalities that took with the public. He was now feeling his way to the public taste, and began to have clearer views of the kind of newspaper that would be likely to be popular. A quarrel with the editor of the *Courier and Inquirer* set him free once more, and it was then, with the higher reputation earned by his Washington Letters, that he cast about for capital to aid him in bringing out his latest idea of an American newspaper. This time he was more successful.

THE BIRTH OF THE "NEW YORK HERALD."

There was not much of a flourish of trumpets when the *New York Herald* was born on a certain day in 1835. The proprietor couldn't afford indulgences of that kind. He could work, and work hard; and he did both, putting in seventeen hours a day, and fulfilling the duties of proprietor, editor, reporter, and salesman. The paper was published in a cellar; its price was one cent. Its motto—not inscribed on the title-page, but deep in the proprietor's heart—was "Sensation." Each issue had to have its sensation, its "startler." Without this, Mr. Bennett knew there would be little sale. So, with the audacity which struck a key-note for American journalism which is still chanted to, the *New York Herald* was started on its career. There was another governing motto, however, that guided the paper besides that of sensation, and that was the determination, openly avowed, "never to be in a minority." The chief principles of the new paper were the principles of business—making sales, creating revenue, forcing popularity. Mr. Bennett had now found his *métier*, and doubtless enjoyed the many fierce encounters that he plunged into in those memorable first years of the paper's history. He got into hot water with the Roman Catholics by a flippant attack upon the doctrine of transubstantiation, which evoked a denunciation of the *Herald* from the Catholic pulpits, and no wonder when the article contained such sentences as the following: "We have no objection to the doctrine being tolerated for a few years to come; we may for a while indulge ourselves in the delicious luxury of creating and eating our divinity; a peculiar taste of this kind, like smoking tobacco or drinking whisky, cannot be given up all at once." On the other hand, the *Herald* gained a good deal of commendation for the insight it had shown in predicting persistently for two years before it happened the financial crisis that fell upon the country with such disastrous results in 1837.

A GREAT SUCCESS.

One way and another the paper made its way into popular favour, and soon became a paying property. Sensation had succeeded. After sixteen years of varied experiment James Gordon Bennett had hit the mark at last. As money began to flow into his coffers he utilised the main part of it in extending the different departments of the paper, took larger premises, engaged clever writers to help him, and kept in all things thoroughly abreast of the times, showing courage, enterprise, and determination in an eminent degree. Although at first he won by sheer audacity, the personalities that marred the issues of the earlier years were gradually toned down, and a certain dignity of style was introduced that did much towards making the journal acceptable to the more thoughtful classes. From the moment that the income of the paper would admit of it, a bold and far-reaching policy of enterprise was entered upon. No mission was too difficult or too costly for the reporters of the *Herald* to be despatched upon. The policy that yielded one of its greatest enterprises in the sending out of Stanley to search for Livingstone has been continued ever since; in fact, the achievements of James Gordon Bennett, the son, have in that connection eclipsed the achievements of the father. Whatever may be said about the *Herald* in the old days there is no getting away from the fact that to-day it is the paper most universally read by the people of New York, and is therefore still the journal of the majority. What the present proprietor has done to bring this about remains to be told.

THE YOUNGER GORDON BENNETT.

Mr. James Gordon Bennett, the son, was born on the 10th of May, 1841, by which time the *Herald* was a well-established and paying property. Fortune smiled upon the boy from his birth. He was to know nothing of the trials and struggles which his father had been compelled to pass through in those hard days of journalistic fighting when the way to success had to be won step by step, amidst many rebuffs and disappointments. The son's way was paved for him to begin with—paved with gold—and it is one of the points which stand to his lasting credit that he has never permitted the gold to spoil or unman him. Inheritors of wealth and position only too often use their power while young men to work them confusion rather than advantage, but the younger Bennett has not belonged to this class. He has lived his life in a royal sort of way and enjoyed his pleasures, as became a millionaire, but he has not dissipated the fortune that came to him, or done anything to lower the name which he bears and which stands for so much in the history of journalism. His father watched over his early training with the anxious care of a strong affection, having him educated under his own eye by distinguished private tutors. The risks and dangers of a college life were thus avoided, and when young Bennett grew old enough to be associated with his father in business he was well prepared for the work he was called upon to undertake. His whole teaching had been shaped to that end. The business faculties had been cultivated as well as the mental powers, and few newspaper men have ever started their career under more promising circumstances. He was made acquainted with every department of journalistic work, from the setting of type to the editing of the great newspaper, in order that when in the course of time he should come to be owner of the *Herald* it could not be in the least degree a matter of strangeness to him. It was the father's one ambition that his son should succeed him, not merely as the inheritor of a great journalistic property, but as the fully qualified editor and manager thereof. This worthy aspiration seemed in a fair way to be realised; moreover, the young man had a decided leaning towards newspaper work for which he showed more than common capacity.

A POCKET-MONEY PAPER.

Having thus satisfied himself that his son was to be trusted to make headway on his own account, the elder Bennett founded the *New York Evening Telegram* and gave it to the son to edit and manage, with the distinct understanding that any profit that he could make out of it was to be his own, for pocket-money, as the old man put it. Thus the son's powers were at once put to a practical test. The new paper would prove whether the young editor was worthy of being entrusted later on with the greater responsibilities of handling the parent journal. The result was satisfactory to all concerned—to the father, who witnessed with parental pride the extraordinary efforts put forth by his son; to young Bennett, inasmuch as it provided him with employment that he liked and profit that he prized; and to the public, because they had given to them an attractive, wholesome, readable evening newspaper at a time when evening sheets did not form the best possible kind of family reading. The *Evening Telegram*, under the control of the younger Bennett, was a success almost from the first, and gave its editor a position of independence that he would not otherwise have enjoyed. The management of a daily paper like the *Telegram* involved a good deal of really hard work, but it was the best training that could have been devised for the young man.

A Daring Sea Adventure.

James Gordon Bennett, the younger, became popular in New York society, and was in much favour at the particular clubs where the sons of rich citizens sought companionship and recreation. He was an especially active member of the Yacht Club, and, like many other young men of the "smart set" of those days, owned his own yacht. One night at the club a discussion was started on racing, and one of the members suggested a yacht race across the Atlantic as something of a novelty. Young Bennett took up the idea with characteristic energy, and promised to enter his own yacht, the *Dauntless*, for such a contest, if others would do the same with theirs. Thus challenged, several members gave in their names, and the first yacht race across the Atlantic was thereupon arranged, it being an express condition, however, that each yacht-owner should sail on his own yacht. There was now plenty of exciting news for the *Herald* and the *Telegram* to report and discuss, and a great deal of interest was manifested by the public in the coming race, about which heavy bets were made. When the day of the start came a considerable crowd assembled to witness the sailing forth, and the yachts were there, but the only owner who turned up ready to go with his vessel was James Gordon Bennett. He alone had the courage to brave the voyage. The yachts set out, however, each properly manned and equipped, and a capital race was the result. Away the yachts sped across the Atlantic, their prows set towards England; sometimes they were well together, almost neck to neck; at other times a morning would dawn when they were completely lost to each other. The *Dauntless* was sailed by Captain Samuels, encouraged and gallantly aided by young Bennett, and so skilfully was the craft handled that she glided into Newport harbour in the Isle of Wight one evening several hours ahead of her competitors. Bonfires were lighted all along the coast in celebration of the victory, and Mr. Bennett was lionised as the first yacht-owner to cross the Atlantic in a sailing yacht. Mr. Bennett has owned several yachts since then, and won many races, but it may be doubted whether he ever entered into a contest with so much zest, or enjoyed a triumph so enthusiastically, as this first win of his with the *Dauntless*. Mr. Bennett is still an ardent yachtsman, his yacht *Namouna* being one of the finest and most luxurious of the time.

Angel Visits.

Mr. Bennett has been the sole proprietor of the *New York Herald* for nearly thirty years, and although he resides for the most part in Paris, in a splendid mansion in the Champs Elysées, he still conducts the affairs of the newspaper by cable communication. That he has a staff of distinguished writers as editors in New York goes without saying, but he is in such constant telegraphic touch with them that he may even while in Paris be said to be in direct control. Only when his personal presence is absolutely necessary or when the impulse moves him does he pay a visit to his native city, and then it is of the shortest possible duration. But it is never known in the New York office what day he may or may not turn up, so his private and exquisitely arranged room in the Herald Building is always in readiness for his reception. Clean blotting-pads and fresh ink are supplied every morning, and everything in the apartment is carefully dusted and got into readiness as though for immediate use. When he arrives at Herald Square, he proceeds to his room through a private entrance, and the first intimation of his presence is conveyed to the staff by the ringing of innumerable bells in quick succession. The editor-commander is calling the heads of his staff together, and for a time, it is safe to presume, there will be much giving of instructions and excitement. He knows his own mind, however, about things, and is in his way a thorough autocrat. As far as the *Herald* is concerned he is the king—the king who can do no wrong, and whose orders must be obeyed. He is a generous ruler for all that, and it is a fact worth noting that the members of his staff are warmly attached to him.

Some years ago Mr. Bennett tried the experiment of publishing a London edition of the *New York Herald*, but did not continue it for long. A Paris edition has been running successfully for some years, and is under the personal direction of Mr. Bennett. The Jeannette Polar Expedition was fitted out by Mr. Bennett at his own expense in 1870 ; and in 1883 he and Mr. John W. Mackay established a special Atlantic Cable Line (the Commercial). Mr. Bennett is a bachelor, and is one of the best known figures in Parisian society. Everything that enterprise, judicious expenditure, and hard work can do to make the *New York Herald* the best paper of its class in the world is done. It is a wonderful paper, even from the English point of view, while to Americans it is a necessity. No matter what a man's politics may be, he has to see the *Herald*.

H. C. FRICK

THE COKE KING

THERE was a time, and but a year or two ago, when the name of Henry Clay Frick was almost as prominent in the steel enterprises of Pittsburgh as that of Andrew Carnegie himself. Indeed, with the actual daily working of the Carnegie Company, Mr. Frick, for the ten years preceding the establishment of the American Steel Trust and the consequent merging of the Carnegie undertaking in that enormous combination, had a greater part of the responsibility of general management on his shoulders than had any other single man.

In 1892, it will be remembered, when the great strike at the Homestead Works of the Carnegie Company was on, Mr. Frick bore the chief brunt of the conflict so far as the employers were concerned, and it fell upon him to be the chief spokesman for the company in the various meetings and discussions which then took place. It was a time of severe trial, and the courage and tact shown by Mr. Frick in his dealings with the strikers were beyond praise. The incident of his being attacked and shot and stabbed several times by one of the men is still fresh in the memory of the people of Pittsburgh, and evoked much sympathy. For some time Mr. Frick's life was despaired of, but, thanks to a vigorous constitution and capable medical attention, he was eventually restored to health. The great strike produced many highly dramatic situations—such as the calling out of the military forces and many acts of destruction on the part of the men—but none so sensational as this.

H. C. Frick

Early Years.

Mr. Frick is a native of Overton, in Pennsylvania, where he was born on the 19th of December 1849. His father was a farmer, and of Swiss ancestry; his mother was of German extraction, and the daughter of Abraham Overholt, one of the largest landowners, and the leading miller and distiller of his time in South-Western Pennsylvania. After receiving a fair education at the local schools, he started business life as a clerk in a concern carried on by his grandfather, who was a flour merchant and distiller. After a service of some time in this capacity, young Frick began to have ambitions and ideas of his own, which reached out to higher and more important things than flour. He saw in the busy country around him a stupendous business growth in connection with the coal, iron, and steel industries, and he made up his mind that the best thing he could do would be to connect himself with them in some way.

A Lucky Stroke in Coke.

After casting about for some time he decided upon going into the coke business, and started with fifty ovens in the neighbourhood of Pittsburgh, devoting himself with so much skill and energy to the business that in a very short time he was able to command a ready sale for all his produce. For a considerable period before taking up with this enterprise he had carefully studied the coke question, and seeing how fast the industries that depended on coke for their furnaces were developing, he rightly perceived that to the man who could supply the best and the cheapest coke there was a great and a profitable field to be worked. Nor was he wrong, as the future proved. It was not very long before he found himself supplying coke to the Carnegies, for Mr. Andrew Carnegie was always on the alert for anything that would give better results in the operations of the firm's rapidly extending works. Thus it came about that Mr.

Frick had to extend his producing power by opening up a larger connection with the coal industries on the one hand, and with the steel industries on the other. The upshot of it was that in time Mr. Frick became a large coalowner as well as a coke manufacturer, and, later on, became personally interested in the steel works also. Mr. Frick showed an almost preternatural shrewdness in his business dealings, and revealed capacity as an administrator that greatly aided the development of his various undertakings.

The Frick Coke Works grew and grew until they became of greater magnitude and importance than all the other coke concerns in the country put together. The company came to own nearly 40,000 acres of coal, and 12,000 coke ovens, with a daily capacity of about 25,000 tons of coke, employing upwards of 11,000 miners and coke-furnace operatives, and furnishing an enormous traffic for the railroads reaching the non-producing districts. This was a tremendous achievement to be accomplished within the compass of a few years, and gave Mr. Frick a status in the business world that was beyond dispute. He was the Coke King of America, without any rival to seriously contest his supremacy. His seeming miles of ovens, glowing and flaming across the landscape; his mountains of coal close at hand awaiting the process of conversion; and his armies of workers, were classed among the industrial wonders of Pennsylvania.

Enters the Steel Trade.

Then came the great amalgamation which connected Mr. Frick directly and prominently with the Carnegie Steel Works in 1889. An undoubted force was added to the famous undertaking when Mr. Frick's vigorous mind was introduced into it as one of the chief factors of management. Mr. Frick was made chairman of the company, and threw his whole heart and soul into the advancement of the gigantic business. Early and late he was bestirring himself in the interests of the concern, and between him and Mr. Carnegie there arose a friendship that was highly honourable to both. There was perfect trust on both sides, and perfect harmony; and so matters went on, the operations of the Carnegie Company widening with every year, and a prosperity and a success followed, the like of which had never before been seen in America, perhaps not in the world. Mr. Frick became a multi-millionaire, like Mr. Carnegie, in due course, and the connection appeared to be one that would last unbroken until severed by the death of one or other of the two leading spirits of the company.

STRANGE DISCORDS.

But a day came when it was noised abroad that there were disagreements between President Frick and Mr. Carnegie on certain points of business management. What those points were, or whether they ever seriously existed or not, is one of those secret chapters of American industrial history that yet remains to be told. It has been hinted that Mr. Carnegie, being familiar with the large furnaces in the Cleveland district of England, and thinking that the British ironmasters had acted wisely in retracing their steps after incurring a heavy loss on these huge furnaces, had recommended similar action at the Carnegie Works. Mr. Frick, it is said, thought differently, and finally carried his point, after which he had four great new furnaces erected with an average daily production of 600 tons of pig-iron each, which was a large increase of output on the older furnaces. The new furnaces—if we are still to credit the popular story—entirely revolutionised the steel processes, making it possible for the Carnegie Company to make pig-iron for nine dollars a ton. Doubtless much of the credit of the erection of the four larger furnaces was due to Mr. Frick, but it can hardly be supposed that their success could be a cause of friction between the president and the founder of the company. To ask us to accept this as the real ground of disagreement between the two is to make much too great a demand upon our credulity. Mr. Carnegie might object to many things that Mr. Frick might propose, or carry out, but he was too much alive to the interests of their common undertaking to oppose an alteration that meant not only a sensible augmentation of the productive power of the works, but a considerable increase of profit. It is worth while placing on record these stories, perhaps, as the current gossip of the time, but when the truth comes to be told, it will most likely be found that the cause of discord was something else altogether. Neither Mr. Carnegie or Mr. Frick has thought proper to speak out on the subject as yet, and until one of them does we shall probably not get at any clear understanding of the disagreement. That there was a falling-out between the two steel magnates was evident from after-occurrences.

A Great Lawsuit.

There was a great fight between Mr. Frick and Mr. Carnegie. The former was forced out of the Carnegie Company, with which he had been so long and so conspicuously connected, and then came Mr. Frick's lawsuit against Mr. Carnegie for the recovery of sundry millions of dollars which Mr. Frick claimed to be entitled to. The most eminent lawyers were engaged on both sides, and there was the promise of a trial that would reveal more of the inner workings of the greatest steel concern in the world than it might be desirable that the world should know. Mr. Frick is a fighter, however, and was particularly aggressive at this juncture. But when all was said and done it was mainly a question of money, and when that came to be acknowledged there seemed to be a reasonable possibility of the disputants coming to terms after all; so, on the initiative of Mr. Carnegie, Mr. Dill, the eminent New York lawyer, was called in as mediator, and eventually his good offices brought about a settlement of the affair. Mr. Frick retired with sundry additional millions of dollars of money to put to his banking account, Mr. Carnegie was saved the trouble of having to appear in a court of law to defend himself against what he regarded as the extravagant demands of his old friend and comrade, and Mr. Dill received the biggest fee ever paid to a lawyer—£200,000—for his services. And that was the end of the quarrel between Mr. Frick and Mr. Carnegie.

QUIETER DAYS.

Since then, however, Mr. Frick has not been inactive. He is a very wealthy man, without any particular need for increasing his millions, but it is not in his disposition to remain idle. He is still a comparatively young man, having only just turned his half-century, and, with the example of his friends the Rockefellers and Mr. Pierpont Morgan before him, it is hardly likely that he will consent yet awhile to retire into private life. Indeed, he has many enterprises still in hand, even though he is no longer connected with the great Pittsburgh steel works. He is not resting on his oars because of the coming into existence of what is known as the Billion Dollar Steel Trust, but, in addition to being still at the head of his original H. C. Frick Coke Company, he has recently completed arrangements with Henry G. Morse, president of the New York Shipbuilding Company, of Camden, New Jersey, and others, for an immense steel plant to be built on Mantua Creek. The new works will be conducted in connection with the shipbuilding company mentioned, of which Mr. Frick may be said to be practically the owner. It is because of this fact that he has decided to erect his new steel plant in the neighbourhood of the main wharf of the shipping company. Associated with Mr. Frick are a number of "old Carnegie men" who sided with the Coke King when the break occurred with Mr. Carnegie. The works will employ 2000 men, and the labour-saving machines introduced will be of the latest pattern and invention, and will include several new contrivances of which Mr. Frick will for a time have an exclusive use.

New Projects.

Another undertaking in which Mr. Frick interests himself is the St. Clair Improvement Company of Pittsburgh, the object of which is to form a new industrial town at Blair Station, where they will build houses for the workmen employed by the new St. Clair Steel Company, erect banks, schoolhouses, and so forth. Since his separation from the Carnegie Steel Company, Mr. Frick has been carefully laying plans for extensive steel operations in various directions besides those indicated, and some who know him well think he will prove to be a considerable thorn in the side of the Morgan Steel Trust. Not that Mr. Frick has any particular wish to be a thorn in any form, his feelings in respect of his old associates being absolutely free from resentment, vindictiveness, or jealousy. He has his own ideas, however, as to how such enterprises should be carried on, and thinks there is room enough in America for other steel undertakings than that of the Brobdingnagian combination. That he has the means, the capacity, and the backing for the prosperous working of a great concern of this kind is fully admitted. Mr. John D. Rockefeller, the Standard Oil magnate, it is said, is ready to co-operate with Mr. Frick to almost any extent, and there is no doubt the future is pregnant with notable developments, in which Mr. Frick may be trusted to give a good account of himself.

Not long ago Mr. Frick made a big real estate purchase in Pittsburgh, including the buying of St. Paul's Cathedral and the Third Presbyterian Church properties, for which he gave £250,000, the biggest price ever paid at one time for Pittsburgh real estate. On this land, situated in the heart of the city, he is building the most extensive office building the State of Pennsylvania has ever seen, the George A. Fuller Company of New York, the famous "sky-scraper" builders, being entrusted with the carrying out of the work.

D. H. MOFFATT

THE BANKER KING OF DENVER

A FEW years ago an excited man forced his way into the well-furnished and elegant private office of Mr. D. H. Moffatt, in the great building of the First National Bank at Denver, of which Mr. Moffatt is the president, and, brandishing a big bottle filled with a mysterious-looking liquid, demanded of the banker all the money he had on hand. "I've explosive enough in this bottle," said the man, glaring fiercely at Mr. Moffatt, "to blow this place and all that's in it to atoms if I drop it, and it drops unless I get the money." Had Mr. Moffatt been met on the highway by an ordinary robber he would have stoutly defended himself, for he has had to rough it in his time, and many is the sturdy encounter he has had out among the mining camps in the old days before he became a banker, and many is the desperado he has dealt out swift physical punishment to; but here was a different sort of proposition altogether; an attack upon the man or any attempt to call for aid would inevitably lead to the dropping of the explosive, and, apparently, certain death to all in the building, the madman included. So, in this case, which the banker considered to be one in which discretion was emphatically "the better part of valour," a quick transaction was effected, whereby Mr. Moffatt handed over to the startling visitor all the money he happened to have within reach—a trifling sum of £4000—and the man disappeared as suddenly as he had come, bearing off with him his booty but leaving his terrible bottle of explosive behind him.

What Mr. Moffatt's precise feelings were when he recovered full possession of his faculties, handed over the bottle to the police authorities, and learned that the dreaded liquid was nothing more dangerous than castor-oil, has never been thoroughly described. Every effort was made to track the thief, but without avail.

The loss of £4000 was in itself an exceedingly small matter to Mr. Moffatt, for he was a man of many millions—the leading banker in the State of Colorado, and a man who was as generous in his givings as in his spending. The sting of the incident was in having been tricked out of the money. That is what he has probably not got over to this day, forgiving as he is of disposition, and broad as are his views.

Fighting his Way.

Mr. Moffatt did not arrive at his millionaireship without a struggle. In his younger days he had had to fight hard for a position, and there had been times when it had appeared as if fortune would never come within his reach. He was a native of Washingtonville, Orange County, New York, having been born in 1839, and while but a youth had ventured out Westward, settling for a time at Des Moines, in Iowa, where he obtained a position in the banking-house of A. J. Stevens & Co. From Des Moines, after about a year's experience, he removed to Omaha, Nebraska, where he held a cashier's position for four years. In 1860 he went with a waggon train to Colorado, and took up with mining operations, bent upon getting a share of the precious mineral products of the earth. For a few years he worked hard, with varying success, with the pick and shovel, and when the great silver "boom" in Colorado set the world talking and wondering, he directed his steps to Denver, and for a while tried his luck among the men of the mining camps of the Silver State, as it was then very appropriately called, for silver was of good marketable value in those days and worth the trouble of getting.

Not having the luck that he looked for, however, Mr. Moffatt ventured into the field of speculation. It might be, and probably is, that gold-mining as an industrial proposition offers a secure basis for legitimate profit. Many men have proved this to be the case. But many fail where the few succeed, and after a time Mr. Moffatt came to the conclusion that he was better cut out for speculation than for mining, and he established himself at Denver as a broker and financier, in the days when things were being "rushed" in the beautiful mountain city. For a while he combined the stationery business with that of banking, but ultimately devoted himself exclusively to finance.

THE DENVER "BOOM."

Denver was the miner's metropolis; and whenever a lucky "strike" was made it was to Denver that the fortunate man came for monetary aid. It was in Denver that the great smelting works were erected, to which from time to time waggon loads of ore were brought down from the mines under armed escort to be smelted. The stock and mining exchanges, moreover, were in Denver, and the city was growing at such a rate that investors, traders, and business men from all parts of the country were being attracted to the place. There could not have been a more opportune time for a shrewd, capable man like Mr. Moffatt beginning financial operations, and it was not surprising therefore that he prospered. When he had made sufficient progress to justify the step, he became connected with the First National Bank of Denver, and from that time forward never looked back. During the great years of the silver "boom," he was there to handle the money of clients to their and his own profit; and again in the still greater gold "boom" which followed upon the discoveries of immense quantities of the yellow metal at Cripple Creek and in various other of the lower ranges of the Rocky Mountains, his helping hand was of splendid service. The very fact that Mr. Moffatt was backing or interested in a gold-mining speculation was almost taken as a guarantee of its success. Those were the days when many people lost their heads. There was over-inflation and over-speculation, and those who trusted too far suffered for it. But Mr. Moffatt held aloof from fancy investments; it was not his practice to deal with companies that did not exist except upon paper; there must be something actual and tangible in sight, and seen by himself or his trusted agents before he would advance a cent. In many of the better class of mines Mr. Moffatt became a partner, but, as a rule, his connection with mines and miners was that of banker and financier only.

A GREAT CRASH.

Those who wanted help were willing to pay for the accommodation, and Mr. Moffatt took such good care of himself that when the panic of 1893 came, and more than half of the banks in Colorado suspended payment, the Denver First National Bank, of which Mr. Moffatt was president and almost owner, was not only able to meet all demands that were made upon it but to extend aid to others, whom a little timely help enabled to tide over the worst of the crisis. It is difficult to realise the condition of the financial market in Denver at this trying period. Bank after bank had to close its doors, a large proportion of the business houses failed, and the value of real estate sank down to almost nothing. Thousands were ruined, trade was paralysed, speculation came to a standstill, and the men of the mines were reduced to sore straits. The mines that were yielding strongly were all right; they were drawing readily realisable ores out of the ground; but those mines that were in the course of development, and had not yet reached the paying stage, were greatly crippled for want of capital and in many cases had to be stopped. Mr. Moffatt steered his enterprise so skilfully through the troubled waters of 1893, that when active business came to be resumed again he found himself in a firmer position than ever. In the Cripple Creek development he played a very important part. Many of the great mines that have since yielded so richly were put into active working by means of money provided by Mr. Moffatt, and the First

National Bank continues to be one of the great factors in the progress of the mining regions of the State of Colorado, and especially of the business life of the city of Denver, towards the beautifying, improvement, and advancement of which Mr. Moffatt has largely and generously contributed.

A Record of Good Services.

Mr. Moffatt lives in a handsome mansion on Capitol Hill, surrounded by every luxury that his heart can desire; still, he is not a man of ostentatious living or of gorgeous entertaining. He takes a lively interest in all that is going on around him, and enjoys existence in a manly, simple way. Denver is naturally proud of a man who has done so much to expand its commercial importance, and although Dean Hart, the eminent preacher of the Cathedral, W. S. Stratton of the Independence Mine, and others enjoy a large degree of the esteem of the citizens of Denver, perhaps Mr. Moffatt is, taken altogether, both in his public and his private relations, as a banker and as a man of the world, the most popular man in the city. Known by everybody in Denver, esteemed by everybody, and on good terms with everybody, he is just the kind of financier that fits in with the life and habits of the "wild and woolly West." When the great fire occurred that devastated Cripple Creek, no one was more active than Mr. Moffatt in sending relief to the sufferers; and in the days of the panic, although he had more than enough to do to look after the affairs of his own bank, he rendered such service to men who had fallen by the way that his good deeds of that time will long be remembered to his credit.

A Little Whim.

In these later days it has become a habit with certain people, who do not trouble to dive into things, to look upon Mr. Moffatt as a man of curious eccentricities. But this is wrong. Mr. Moffatt has his moods of generous impulse, like other rich and well-meaning men, but there is not only method but charity and goodness and nobleness of heart in these acts. A year or two ago, Mr. Moffatt took it into his head to make a trip to Europe, and he started out from Denver alone, for he is not a man who requires a big retinue of servitors or lacqueys to dance attendance upon him in his goings to and fro. He has been from boyhood accustomed to rely on himself generally for what he wants, and to act upon his own responsibility in the ordinary affairs of life; so, when he halted for a few days in New York before setting sail for Liverpool and struck up a more than passing friendship with the head-waiter of the Fifth Avenue Hotel, where he stayed, it seemed one of the most natural things that he could have done. Not that Mr. Moffatt is not competent to hold his own in any circle, however high; not that he has any particular liking for the company of what an Englishman would call his inferiors; not that he had any other thought in his head than that of recognising and acknowledging good service and friendly attention. But the head-waiter, whose name was Gay, pleased the banker; and the day before the latter left New York he very much astonished the worthy head-waiter by offering to take him to Europe with him if he could make it convenient to go. Other rich men take their valets with them, why should not Mr. Moffatt take his head-waiter along with him if he felt so disposed? There was no reason in the world why he shouldn't; and as Mr. Moffatt could afford to indulge his whim, and it was nobody's business but his own who he took with him, and as equality is something more than an empty form of expression in America, there was nothing so very strange or surprising about the proposal after all. At anyrate, Gay accompanied the banker to Europe, went the round of the principal cities of England and the Continent, and the two enjoyed themselves together reasonably and rationally, and subsequently returned to New York, when Gay resumed his head-waitership at the Fifth Avenue Hotel as if nothing particular had happened, and Mr. Moffatt went back to his home in Denver and was the banker prince and busy financier as of old, and neither of them, as far as is known, was any the worse for the temporary association, or had any cause to regret it. The only drawback following upon the holiday episode has been that whenever Mr. Moffatt betakes himself to New York nowadays he is unable to stop at any of the better known hotels without being subjected to more attention on the part of the servants than he appreciates, with the result that he now usually takes refuge in some obscure boarding-house where he can pass comparatively unnoticed.

Christmas Surprises.

Mr. Moffatt, however, has always been one to recognise good and efficient service, as the chief officials of the First National Bank at Denver have good reason to know. With the ending of each successful year he makes it a rule to bestow handsome presents to those who seem to him to most deserve them. For instance, at Christmas 1899, he presented his chief cashier, George Ross Lewin, with a cheque for £20,000; and gave to the assistant cashier, Thomas Kelly, one for £15,000. It is one of the conditions of these princely gifts that they shall be kept secret, but actions like these are difficult to be kept undivulged, and occasionally the story of them leaks out.

From these facts it will be easy to gather some fair notion of Mr. Moffatt's character. The strain and struggle of his early days have left no unpleasant traces—not the slightest ill-nature—in his disposition. While he was fighting his way up he fought well and manfully, and never took an unfair advantage of a rival; when he had climbed to success he developed those sturdy features of character which make him one of the most unique figures in the life of the State of Colorado, now the richest gold-producing State in the country. Strong of will, emphatic of utterance, and possessing keen commercial instincts, he is entitled to be regarded in an eminent degree as one of the founders of his State's prosperity.

POTTER PALMER

A SUCCESSFUL PIONEER

Mr. Potter Palmer is one of the best known of America's millionaires. His alliterative name has long been familiar to his fellow-countrymen. For thirty years or more he has been a conspicuous figure in social as well as in business circles, and to-day every distinction that the favour of American society can confer may be said to be the possession of himself and his able, spirited, and active wife. One reads of them from day to day in the chronicles of fashionable life, for whether they happen to be enjoying themselves in the exclusive circles of Newport, or taking their pleasures in New York, where millionaires most resort, or sojourning in their palatial Lake Shore home in Chicago, the newspaper-man takes good care that they shall not escape him. Mr. and Mrs. Palmer, indeed, are of the upper-crust of the moneyed aristocracy of America, and none can say that they have won their way into it in an unworthy manner. That Potter Palmer started at the bottom of the ladder is not allowed to count against him in a country where nearly all the individual wealth has been amassed in a single lifetime. Having fought his great fight for fortune and won, and having enriched himself by honest means, he is the equal of the best and knows it, and acquits himself accordingly.

Decides on a Business Career.

Potter Palmer's story is practically the story of Chicago. As his name would imply he is of English descent, his parents being members of a family whose first American ancestors were among the early settlers in New Bedford. He was born at Potter's Hollow, Albany County, in the State of New York, in 1826, his father having a farm on the banks of the Hudson. In this distinctly rural region the lad was brought up and received his education. Railways had not then spread themselves in a metal network over the country, and the electric telegraph and all that electricity now signifies were but the dreams of scientific men. In that secluded northern nook of the Empire State young Potter Palmer could hardly be said to be in touch with the more active developments that were taking place in the larger centres of population, but he read of them in the newspapers and in books, and, although he was a willing and an intelligent worker on his father's farm, as he grew towards manhood he conceived a strong desire to identify himself with business life of some kind. His father, a sedate Quaker who had inherited the quieter instincts of his Puritanical forbears, would fain have kept Potter near him, with the rest of the family of seven children, and tried hard to dissuade him from wandering away from the old homestead. But it was not to be. Potter had made up his mind not to be a farmer. So at the age of eighteen he migrated to the town of Durham, New York, not a great many miles from home, still sufficiently far to put his determination to something of a practical test. Ready for anything that might turn up, he was not long in obtaining a position as a clerk in a local store, and he soon discovered that this kind of occupation was much more to his taste than handling the hoe or driving a team. For three years he stuck to this post, working hard, gaining experience, and quietly nursing an ambition for a broader field of activity. So well did he manage his duties that in time he was placed in full charge of the establishment. Then, having served something of an apprenticeship, and saved a little money, he resolved upon setting up in business for himself, and removed to Oneida County, and, later still, to Lockport in Niagara County.

Thus matters went on until he reached the age of twenty-six, by which time he had been eight years away from home, and was thoroughly imbued with business ideas and ambitions. He was as successful as he could expect to be in a small country town, but he soon began to have an irrepressible longing for a larger centre of operation, and, after looking outward in every direction, and carefully weighing the possibilities offered by one big city and another, he decided upon throwing in his luck with Chicago, and to that place he betook himself in 1858.

SETTLES IN CHICAGO.

There were many reasons that influenced him in his choice. For one thing, Chicago was expanding at a greater rate than any other city of the Union, with the exception, perhaps, of San Francisco; for another, it was much easier to gain a footing in a new city where things were in a state of transition than in an older centre where business affairs were better established. Chicago was a wilderness of a place in those days; but those who, like Potter Palmer, could read the signs of the times, could see that out of the existing chaos there would one day arise a great, a powerful, and a prosperous city. So, full of hope and confidence, Mr. Palmer opened a drapery store in Lake Street—at that time the principal business street of the city—and brought so much energy and thought to bear upon his enterprise that in no very long time he became prosperous beyond expectation. Without any city training, without experience of the requirements of a large place like Chicago, fresh from the quiet ways of a remote town, he nevertheless contrived to attract an abundance of custom. Full of bright ideas, always alert to changes of season and fashion, and anxious at all times to study the convenience of shoppers, he soon drove ahead of his rivals. His first year's sales amounted to £14,600; but before he retired from the business in 1867 the annual sales had reached the enormous total of £1,400,000. He built up the greatest business of its kind outside the city of New York. Numerous new features were gradually introduced by him into the business, and he always seemed to be in advance of everybody else.

PROFITS BY THE CIVIL WAR.

During his long career, Mr. Palmer has been confronted from time to time by many sudden emergencies, involving great consequences and demanding quick and wise decision. Such an emergency presented itself at the outbreak of the Civil War. Many business men were frightened and lost faith, selling out their stocks of goods at ruinous sacrifices. Mr. Palmer was made of sterner stuff. He did not lose his head, but had the foresight to realise that by careful action the events that were filling the country with alarm might be turned to profitable account. Therefore, instead of following the example of others and turning his goods into whatever money they would fetch, he doubled his capital and increased his stock, filling warehouse after warehouse with goods, until the resources at his command were exhausted. It was a daring thing to do, and many of his friends shook their heads over what they looked upon as his excessive rashness; but, as it fell out, he saw farther than they did, for in the first four years of the war he made more than £500,000, and when the conflict was brought to a close owned £450,000 in Government bonds alone. In the meantime Mr. Palmer had taken Mr. Marshall Field and Mr. Levi Z. Leiter into partnership with him, and in 1867 he sold out to them and left the dry goods business for ever. He was now a rich man and could afford to live in retirement for the rest of his days, and that is what he had almost made up his mind to do, being but in indifferent health. So he went abroad for a time, and the people of Chicago began to think that they had seen the last of a worthy business pioneer, who for fifteen years had been one of their most valued and active citizens.

RESOLVES ON A NEW CAREER.

After he had rested awhile, however, his heart turned once more towards Chicago. There it was that he had made his fortune, and there it was he felt that he must make his home. So, when renewed health and vigour returned to him, he began to think of resuming active business life in the city of his affection. Then it was that he dreamed of a new Chicago, a greater and more beautiful Chicago. In those days it was certainly a somewhat disagreeable spot to live in, for the streets were narrow, badly paved, and dirty, while the suburbs were ragged and unkempt. There was land enough, since there were empty prairie lands stretching out from the city on all sides, and there was material enough—what was wanted was shape and purpose and action. Thinking these things seriously over in his days of leisure, Mr. Potter Palmer decided not only to return to Chicago but to devote himself to the work of improving the condition of the city, not exactly from philanthropic motives, but as a business proposition out of which he looked to make large profits. Thus he was drawn into a new, broader, and more important career than before, and at the age of forty-one began the work of rebuilding Chicago.

Up to that time Lake Street, where he had carried on his drapery business, had been the main business street of Chicago. This thoroughfare ran from east to west, and, because of the lake at one end and the river at the other, extension was impossible; and Mr. Palmer foresaw that there would soon be a time when, with a city increased in population to millions, a larger and finer business street would be demanded. He therefore concluded to make a bold and vigorous onslaught on State Street, which runs from north to south and was capable of miles of extension, and, as a first move, he purchased an entire mile of State Street frontage. This tremendous investment in real property caused a considerable sensation, and many thought that

Mr. Palmer had burned his fingers, State Street being then but a narrow, ill-kept, badly-lighted thoroughfare, hardly more than an alley. He proposed to the City Council that they should widen the street, but was unable to get them to move in the matter. This obstinacy, however, did not daunt him—he started to erect business premises in State Street of such dimensions and beauty as had never before been seen in Chicago. One of those was called the Palmer Building, and was constructed of marble brought from Vermont. He built more than a dozen of these large structures, in every instance setting them back to the building line at which he wished to have the street re-formed. Within three years he had so transformed the city end of State Street that it had become the chief business thoroughfare, outdistancing Lake Street altogether. But there was still the difficulty of widening State Street to contend with ; and at last he offered to give the entire frontage of his mile of lots to the required building line if the Council would pass a resolution for the street to be widened. Then came a serious conflict. The Council voted the resolution, but the other property-owners refused either to give or to sell ; and at this point of deadlock matters stood when there came the great fire of 1871, which solved the difficulty by destroying the obstructing buildings along with other parts of the city, and when the restoration began, the building line laid down by Mr. Palmer was rigidly enforced.

THE GREAT FIRE.

The fire altered everything. For a time it looked as if Mr. Palmer was ruined by the catastrophe. All his great new buildings were destroyed. Premises from which he was drawing over £40,000 a year in rentals were laid in ruins. When the news of the fire reached him he was on a train journeying to New York. His wife, to whom he had been married but a year, was left behind in the burning city, and he immediately telegraphed to her to keep her courage up and do all she could to help the sufferers. Then he hurried back to the scene of destruction, and was horrified to find his work of so many years undone. It was a terrible blow, and at first he was tempted to relinquish everything, sell what remained to him, and retire into private life, but his wife urged him against such a course, and he ultimately decided to begin again with his task of building up State Street, and on the ruins that stretched before him to erect even a finer frontage than before.

He borrowed £600,000 on his building lots, all of which were covered with débris, and embarked upon the work of re-erection with indomitable energy. In time there grew up along a great part of the length of State Street immense blocks of handsome business structures from the income of which he was soon able to repay the sum he had borrowed, after which he was once more in receipt of a princely revenue. It should be mentioned in connection with this scheme of rebuilding that he erected what when finished was the finest hotel on the continent. This was the Palmer House. It cost so much to build that an immense rental was necessary to make it pay the owner, and hotel men were afraid to assume the responsibility of such a charge. In this difficulty Mr. Palmer determined to open the hotel, even if compelled to take up a new business and become a hotelkeeper himself, and this he did, with a success that amply justified the experiment.

Later on he built himself a stately mansion on a tract of land adjoining the North Shore. He erected numerous other fine houses in the same district, and succeeded in creating a new residential neighbourhood, called Lake Shore Drive, by the development of which he largely increased his already enormous income.

In all that he has taken in hand in connection with the reconstruction of Chicago he has contrived, while benefiting himself, to materially improve the condition of the city. Apart from the things he has himself profited by, moreover, he has always striven to obtain for the people the advantage of parks and open spaces, and has aided in many ways the social, moral, and educational advancement of his fellow-citizens.

Had Mr. Palmer desired to enter public life there is hardly any avenue that was not open to him. When General Grant was President he offered Mr. Palmer the Cabinet position of Secretary of the Interior, but the office was declined. In fact Mr. Palmer has from first to last been a man of business. He has had the brain to conceive large projects, the skill and courage to carry them out, and the rare power of taking up only those things which have yielded him splendid profit. In these days he takes life quietly, enjoying the social grandeurs of his station without ostentation, and relegating much of the duties of fashionable functions to his wife, who is one of the most popular women in the country. They have two sons, Honoré Palmer and Potter Palmer, jun., both of whom have had business training.

DR. D. K. PEARSONS

THE MILLIONAIRE PHILOSOPHER

It is not every millionaire that is a wise man. He may be shrewd, clever, talented, even benevolent, and yet with all his accumulation of good things may not be able to include wisdom in the list. Worldly wisdom he will have, of course, but that is mainly the wisdom of selfishness; true wisdom is more profound, more far-seeing, above all, it is sympathetic. And that latter quality is precisely what Dr. D. K. Pearsons of Chicago possesses in abundance, and it is in the exercise of this sympathy that he is an altogether unique character among the millionaires of the day. He has no special hobby to ride, such as Mr. Carnegie takes up with such zeal and spirit in his munificent benefactions to libraries. The spirit of Dr. Pearson's benevolence takes the broadest possible scope. All good causes appeal to him alike, and the large fortune that he has made he has disposed of, or intends to dispose of, for the benefit of others entirely. It was for the sake of being able to be of practical help to his fellow-creatures that, at forty years of age, he made the resolution to become a rich man, and he has prospered exceedingly, and carried out his intentions to the letter.

An Unselfish Aim.

Dr. Pearsons' career is probably unique. Brought up to the medical profession, which he practised from his thirtieth to his fortieth year at Chicopee, Massachusetts, with as much success as might have been expected in the limited sphere in which he had worked, he proceeded westward to Chicago in

1860, with the deliberate purpose of becoming rich in any honest way that presented itself. He presumed that in a new and growing city like Chicago more chances of "getting on" would be likely to occur than in the slower and more fixed cities of the East. To Chicago accordingly he went, accompanied by his wife, and carrying with him, carefully put by in his wallet, a sum of £1000, which in his ten years of medical practice he had contrived to save. His friends at Chicopee thought him mad, but there was more "method in his madness" than they imagined. He told them he was going West in order to make a fortune. He told them also that he meant to abandon his profession, and they marvelled much how a man of forty could hope to become wealthy except by following the special work for which he had been educated. Dr. Pearsons, however, was a man of determination and resource, and whatever misgivings his friends might have regarding him, he was not troubled with any such doubts himself.

A Modest Start.

Here was a man who had simply set himself the one task of making himself rich—not by this, that, or the other, not by any course of action that he had fixed upon, but by anything that might turn up. And when, on a certain drizzly, disagreeable evening in April 1860, he and his wife landed with their scanty belongings at the railway station in Chicago, their prospect appeared none too cheerful. To begin with, they found out a modest sort of boarding-house, where, for a pound a week each, they could be provided for as regards lodgings and the necessaries of life. The next thing was for the doctor to find something to do—something on which to begin his new career of money-maker upon—and as a step towards this he induced a couple of young lawyers, Harvey B. Hurd and Henry Booth, to let him occupy a desk in their office for the rent of £5 a year. What kind of work he was to do at this desk remained to be settled.

A Big Commission.

Chance decided for him. A friend of his in the East owned some 14,000 acres of farm lands in Champaign County, Illinois, which he was desirous of selling, and he proposed that Dr. Pearsons should make an attempt to dispose of the property in small tracts. The doctor accepted the commission, and put an advertisement in the Chicago papers offering his friend's lands for sale in lots of from 120 to 140 acres each. But times were bad, and land was difficult to sell. Farm products were fetching ruinously low prices, and many settlers were forced to let their farms go, being unable to pay for them out of the produce of their crops. Dr. Pearsons did not despair even when confronted by such distressing circumstances as these. Sanguine and hopeful, he packed his papers and money into his small valise every Monday morning and set out to the property in question intent upon selling farms. He told the farmers what he thoroughly believed and what actually came true, that prosperity would soon be with them again, and, as a rule, before returning home to the boarding-house on the Saturday night he had succeeded in disposing of some portion of his friend's land.

Up Went the Rent.

Thus, bit by bit, he at length got rid of the whole 14,000 acres, receiving a commission of five per cent. on the purchase moneys for his trouble. It was not a very profitable affair; still, it helped him in the way of making him known as an active man of business. His desk landlords, the lawyers, recognised his achievement by doubling his rent, making it £10 instead of £5. But good news from the East soon came along again. Other friends wrote from there desiring Dr. Pearsons to sell their Illinois lands, and those he disposed of even more readily than the first lots. Dr. Pearsons and his farm land sales soon became famous, and the lawyers advanced his rent again—this time to £15.

Whether they considered themselves entitled to charge rent on a commission basis or not is not known, but before they could stick another £5 on the Doctor packed up his papers and moved his office to what was known as the Methodist Church block, where he took a whole suite of rooms.

Large Deals in Prairie Lands.

Then business began to pour in upon him at a great rate. Michael Sullivan, the Illinois farm land king, as he was called, turned over thousands of acres of his prairie lands to Dr. Pearsons, who divided them up into farm lots and sold them with comparative ease. His method was, as it had been from the first, to advertise his lots in the newspapers, get into correspondence with proposed purchasers, and then drive from place to place to meet them. Sometimes his sales for the week amounted to £12,000, out of which he would draw £600 as commission. So well was he doing that another of his landlords—his boarding-house landlord this time—doubled the price of the board bill, making it £2 a week each for himself and wife. This the Doctor resented. He could be generous, and was generous, but he expected a "fair and square thing" when it came to a matter of business, so he went into housekeeping on his own account, buying the house next door to the boarding-house, which was in Van Buren Street, Chicago, and paying for it with a 400 acre farm near Rochelle. This Van Buren Street house was Dr. Pearsons' home for many years afterwards.

But no matter how much money Dr. Pearsons made, he always lived carefully and modestly. He knew the value of the maxim that "a penny saved is a penny earned," and neither spent money in amusements out of business or in hiring help in business. He never went to a theatre, and in the busiest times never employed a clerk, and although he had an overwhelming ambition to become wealthy, both he and his wife continued to nurse the resolution they had started out with—to give whatever they might accumulate to charity, when they had amassed enough.

ESTABLISHES COLONIES.

The land sales of Dr. Pearsons became famous. He had done so well for his earlier clients that fresh ones came to him without seeking. One of the most valuable of these new customers was Solomon Sturgis, then accounted the richest man in Chicago. Mr. Sturgis owned an immense quantity of prairie land in different parts of Illinois, and he entrusted the sale of it to Dr. Pearsons, as Mr. Sullivan had done with his property. With the Sturgis property Dr. Pearsons ventured upon an entirely new scheme. Cutting the land up into 100 and 150 acre lots, he brought over from the East a number of Scotch and German colonists, settled them on suitable locations, and in this way founded village after village, disposing of 100,000 acres for Mr. Sturgis between 1860 and 1863. A small cash payment was made by each settler on making his bargain, the rest of the purchase money being allowed to remain over until some income was being earned out of the land. Many of the purchasers were Civil War veterans, who would write to Dr. Pearsons from the East asking him to select a good farming lot for them, and enclosing the amount of the first cash payment, which was usually £40.

Another happy stroke of fortune came to the doctor about this time by the Illinois Central Railroad appointing him its agent for the sale of its farm lands in the State, which lands extended from Chicago to Cairo and for fifteen miles on either side of the line. The same method of procedure was adopted as in other cases, and with the same success. So it came about that within ten years of his coming to Chicago Dr. Pearsons was a wealthy man. In his old home at Chicopee it had taken him ten years to save £1000; in Chicago in a similar period he had saved more than a hundred times as much, by changing his old profession of doctor for the position of a land-seller. He was rated as one of the great capitalists of the city.

A Busy Life.

Still, he was far from being satisfied. He had more than enough for his own requirements, but not enough by a long way for the charities he was enriching himself for. So he plodded on, enlarging his plans for money-making, and pushing ahead with as much zeal and energy as if he had been intent upon becoming one of your common, everyday sort of millionaires with an ambition for society and display. He was now fifty years of age, but as youthful in heart as ever. This was in 1870, when he contrived to alter the scheme of his life somewhat by selling his house in Van Buren Street and taking up his abode in the Palmer House, then the chief hotel in Chicago, and at this place Dr. Pearsons and his wife lived for the next fourteen years.

Dr. Pearsons now became interested in a variety of projects of a money-yielding character besides his land sales. He acquired a large interest in local street-railway schemes, and invested in several other public enterprises, in all of which he took a very active interest. He also went into the lumber trade, buying up large tracts of pine lands in Michigan, adjoining the White and Muskegon Rivers. After accumulating 16,000 acres, he began to clear off the timber, selling the logs at a great profit. But in this as in everything else he attended to every business detail himself. Twice a month he made a trip to the logging camps and disposed of the logs himself at wholesale. This pine land property stood him in good stead after the great fire. He owned nine houses which were burned down, and the contractors took the price of rebuilding out in pine logs.

Saves the City's Credit.

It was in the nature of things that a man so highly esteemed as Dr. Pearsons came to be, should be solicited to take part in the public life of the city, and for several years he did good work as Alderman, declining to ally himself with any political party, but preserving a reputation for independence and irreproachable honesty during a period when the standard of Aldermanic conduct in Chicago was low indeed. On one memorable occasion Dr. Pearsons saved the city from bankruptcy. The municipality had reached the end of its credit, and was on the point of repudiating its obligations. Municipal bonds were falling due, and the Eastern bondholders were clamouring for payment. Dr. Pearsons was chairman of the Finance Committee, and so determined was he to uphold the credit of the city that he went to New York and Boston, attended meetings of bondholders in both cities, and pledged his personal fortune for the redemption of the bonds. Thus was the city's credit saved.

In everything that pertained to the social, moral, and religious improvement of Chicago Dr. Pearsons was always a prominent worker. He was trusted as few men are trusted. When Daniel A. Jones died, leaving a fortune of £600,000, Dr. Pearsons, as one of the executors, shared with the widow and another executor a personal bond of £300,000. Up to that time he had placed loans aggregating over £8,000,000 on farm properties. But with all his public duties he did not relax in his efforts after still further enrichment. In 1884 he built a suburban home at Hinsdale, some sixteen miles from Chicago, but every day he was bustling about in the city or out upon the land lots, taking good care that his money-growing should not suffer from inattention. So his gains mounted up higher and higher until 1890, when he began to think that it was about time he began to give away some of his huge fortune.

Begins to Give.

His first gift was to Beloit College in Wisconsin. Thenceforward his donations followed fast and generously. Between 1890 and 1900, Dr. Pearsons gave away £300,000, and recently has planned further charities to the amount of £300,000. In fact he is only reserving for himself and his wife a joint-income of £6000 a year—far beyond what he considers their needs, but sufficient to allow of his continuing his habit of giving to the last.

In everything he does the Doctor displays perfect system. He has no children, so that he and his wife are at liberty to bestow all their affection on their charitable labours. They have never spent over £300 a year on housekeeping, and yet they have lived the most enjoyable of lives. Dr. Pearsons, although eighty years of age, rises at six o'clock every morning, and retires to rest each night at eight. It is worthy of remark that although Dr. Pearsons has never belonged to any church, his gifts have been exclusively to colleges and institutions having religious affiliations. At one time he had as much as £30,000 out on loan to needy students at three per cent. Among Dr. Pearsons principal gifts the following may be mentioned:—Beloit College, £59,000; Chicago Theological Seminary, £56,000; Lake Forest University, £25,000; Colorado College, Colorada Springs, £30,000; Mount Holyoke Seminary, £30,000; Beres College, Kentucky, £20,000; Knox College, Galesburg, £20,000; Whitman College, £25,000; Drury College, £20,000; Yankton College, £20,000, and so on—a wonderful list.

Erects his own Tombstone.

Everything connected with his worldly affairs is now fully settled, even down to the erection of his own tombstone, which was put up by him in the Hinsdale cemetery in 1896. The granite for this monument was brought from Barry, in Vermont, where he taught school in 1836. "I desire to have my affairs all arranged before I die," says the good Doctor, "so that I shall have only to lie down and rest." Even the £6000 a year reserved for himself and wife for the remainder of their days is payable from some of the later charities which have been made recipients of his bounty.

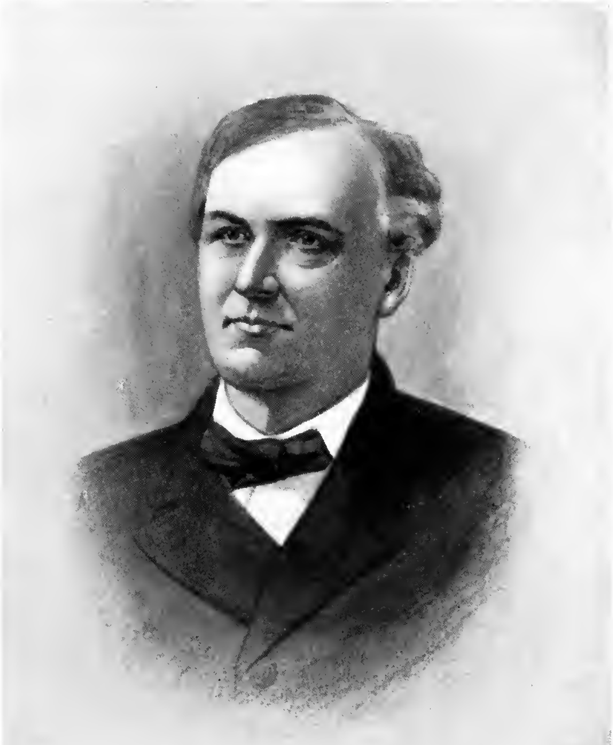
JOHN WANAMAKER

THE DEPARTMENT STORE KING

It was Sydney Smith who said that "in order to do anything in this world that is worth doing, we must not stand shivering on the bank thinking of the cold and danger, but jump in and scramble through as well as we can." This is much better than doubting and waiting and hesitating, consulting one's brother and one's uncle and first cousins and particular friends, till one day one finds he has lost so much time in consulting others that he has no time left either to follow their advice or act upon his own initiative. John Wanamaker is of the type that did not hesitate. When he found himself a poor barefooted boy in Philadelphia upwards of half a century ago, he had sufficient grit and "go" in him to force himself forward. He had a brain to conceive and a will to act for himself independently of any one else in the world; without such natural gifts the barefooted boy would have drifted into the common ruts into which so many poor boys almost unconsciously fall, and might have remained poor to the end of his days.

Two Generations of Brickmakers.

For two generations the Wanamakers had been obscure brickmakers without influence or position, but in spite of this John Wanamaker contrived, by sheer force of energy, to work himself up into a condition of honour, trust, and wealth such as few have achieved even in that greatest of all countries for opportunities—the United States of America.



HON. JOHN WANAMAKER
THE DEPARTMENT STORE KING

From an Original Drawing

One of the leading features in Mr. Wanamaker's character has been his unswerving honesty and integrity in all the relations of life. He was a pious boy, not in an imitative way, but from conviction. Amidst his early poverty-stricken surroundings he had not failed to observe that the boy or the man of honest purpose not only succeeded the best but was by far the happiest. He was not like the American senator who, when a friend remarked that they never ought to forget that "honesty was the best policy," observed, "That's right; but I must say that after a man has been in my line of business a few years he is liable to get his ideas about what's honest and what is not twisted around a good deal." There was never any twisting around in regard to Mr. Wanamaker's ideas of honesty; they were firmly rooted in him, and whether as concerned the business which he has successfully built up, or in relation to political life, he has always been the enthusiastic champion of undeviating honesty. It has to be admitted with regret that his rigid adherence to right has often brought him into serious conflict with opposing elements, and has now and again had the effect of placing him in a temporary minority, but, never discouraged, never wavering for an instant, he has stolidly pursued the course he has thought right, until to-day, in the esteem of friends and opponents alike, he is looked upon as one of the most honest representatives of commercial morality and political incorruptibility that America can produce.

A Great Preacher.

It is related of Mr. Wanamaker that in the days of his youthful poverty in Philadelphia he was attracted by the preaching of Dr. Chambers, a very popular Presbyterian orator of the period, who possessed many sterling gifts, and was undoubtedly a most impressive speaker. Dr. Chambers was not attached to any special sect, being too broad in his views to be deemed worthy of being attached to the old General Assembly, and too remote from any narrow dogma or creed to be considered entitled to a place among any of the sects. He therefore established an independent church in a rough wooden structure in Philadelphia, and there every Sunday he propounded in eloquent language the general truths of the Christian doctrine, without any hair-splitting as to this or that construction of a phrase, but laying down plain and simple rules of conduct that all could understand and appreciate who were so minded. It was the custom, moreover, for Dr. Chambers to discuss in the pulpit prominent political topics from the same wholesome point of view as that in which he discussed the Scriptures, and Philadelphians would say to themselves, "Now let us go hear the lion roar." Dr. Chambers was a lion indeed to John Wanamaker, who was at that time an errand-boy in a book-store. To the humble lad there was something inspiring in the fearlessness with which Dr. Chambers fulminated against the enemies of truth and honesty, and proclaimed those broader principles which constitute the truest qualities of manhood. John Wanamaker idealised the preacher.

One Sunday, when the little wooden church was filled to its utmost capacity, Dr. Chambers wound up an eloquent sermon by a strong appeal to the congregation to help him to build a suitable church for them to worship in. The church, he told them, was needed for the better prosecution of their fight against wickedness, and he entreated the people, whom he knew were poor, to render aid in substantial things if they could not afford to give money. Rarely had the good Doctor been moved to such eloquence as he displayed in this touching appeal, and when he sat down there was a dead silence for a minute or so in the closely packed church; then up in the small gallery a child's voice was heard calling out over the heads of the people, "I will give one load of bricks from my father's yard." The owner of that child's voice was John Wanamaker. The spontaneity of this response moved the congregation considerably, and had such an effect that Dr. Chambers obtained during the few following weeks more substantial aid towards the new church than ever he had dreamed of.

A BRICK STORY.

There is another brick story that is worth telling in connection with Mr. Wanamaker. Mr. Wanamaker has for many years past been the superintendent of what is probably the largest Sunday-school in the United States. The good work that he has done in this position is well known to all Philadelphians. He is one of the most eloquent of practical Christians, with a gift of homely speech and apt illustration that often recalls such men as the late Henry Ward Beecher and Charles H. Spurgeon. One Sunday, when addressing the children of this school, he took occasion to plead the cause of a new mission school that was proposed to be established in Philadelphia. After setting forth the great good that such an institution would be capable of accomplishing, he concluded by saying, "And I want each of you to buy one brick, and bring it here the next Sunday. The bricks will be used in the construction of the mission-school, and each of you will be able to feel that he or she has had an actual part in the building of the school." When the next Sunday came the school was alive with excitement, and each of the hundreds of boys and girls had come with a brick. Some had brought two, some three, and some as many as they could carry. It was a curious scene indeed. When Mr. Wanamaker advanced to the front of the platform and stretched forth his hands to exact silence until he addressed them, there was such a buzz of excitement that he was unable to go on. He saw that it was absolutely necessary to get down to that matter of the bricks with as little delay as possible, so he just said, "And now about those bricks for that mission-school that I talked to you about last Sunday." He could proceed no farther, for instantaneously a forest of arms went up into the air, each hand clutching a brick. His appeal had been answered in the most practical manner, and he was satisfied. The bricks were then piled in a heap outside the school, and the contribution towards the new building was looked upon as a very handsome one. Mr. Wanamaker was pleased with the children, and the children were more than pleased that their efforts had met with his approval, and all seemed as well as well could be, until the next day when Mr. Wanamaker was waited upon by a fiery-eyed contractor, who put before him a bill claiming payment for huge piles of bricks that had disappeared from his brickyards on the previous morning.

Before leaving this subject of Mr. Wanamaker's association with religious movements, it should be mentioned that not very long ago he took part in the laying of the corner-stone of an elaborately planned memorial church erected in Philadelphia to commemorate the distinguished services of the Dr. Chambers of his youth and Dr. Wylie. Mr. Wanamaker paid nearly half a million dollars for the valuable Broad Street corner where for half a century the original church in which he had worshipped stood. The spot was hallowed by the dearest recollections of his boyhood, and in his prosperity he did not forget them.

A Good Start.

From the foregoing it will be readily gathered that Mr. Wanamaker has through life been a consistent Christian, and that to do good has with him been a life-long habit. Let us now attempt to briefly set forth the more material achievements of this energetic man. His early years were years of hard struggle against obstacles and difficulties such as hardly present themselves to the boyhood of America in these days; but whatever John Wanamaker had to do he did it with all his might, and worked hard and unceasingly, picking up a good solid education as he went along, and never permitting himself to be diverted from the high principles of conduct which Dr. Chambers had inspired him with. He was by no means a namby-pamby, goody-goody sort of boy, but a healthy, wholesome lad, who looked upon life cheerfully and bravely, and felt that there was much in it that counted for a man's happiness so long as he had the strength to resist the temptations which lead to folly.

John Wanamaker was a thrifty lad, and whenever his means would admit of it, put money by. His first employment was in a book-store at six shillings a week. Later on he obtained an engagement as clothing salesman, and soon secured the confidence of his employers, having his wages advanced again and again. All the time he was putting money aside, and in 1861, when he had saved £400, he went into business with Nathan Brown. Subsequently he entered upon a clothing enterprise of his own. It was a very little shop, and he did not require much assistance in its management, but he stuck to it so closely, and made it so attractive and managed it so well, that in no very long time he was able to branch out into a larger way of business and to lay the foundation of his after success on a firm and durable footing.

THE BIRTH OF THE DEPARTMENT STORE.

About 1870 he conceived the idea of opening what has since come to be known as a Department Store—that is, an establishment which is not simply a draper's shop, or a grocer's shop, or a hat shop, or a boot shop, or a furniture shop, but all combined into one; each shop being a department of one general establishment. Hence the term Department Store. It was a bold thing to do, and still a very natural thing. In Paris the Boucicauts at the Bon Marché had shown how such a business idea could be profitably handled in an old capital like Paris, and in London successful attempts in the same direction had been made; why therefore, Mr. Wanamaker asked himself, "should not the idea be capable of adoption in Philadelphia." At any rate he resolved to try the experiment, and not in any half-hearted manner either, but boldly, and on a scale that would at once suffice to prove whether the enterprise was a feasible one or not.

AN IMMEDIATE SUCCESS.

The Department Store was an immediate success, and there is no denying that in its developments it has been of immense service to society. In 1870 the population of Philadelphia was 674,022; in 1890, it was over 1,000,000; and has since increased largely. There are in that city to-day at least more than a dozen Department Stores on the Wanamaker plan, which furnish employment for some sixteen thousand people, a number almost equal to what was employed in 1870 in all the shops then existing in the city. It was a complete revolution in shopkeeping, displacing the slower, old-fashioned system with one that insured a more adequate and quicker service, and installed a body of workers who were well trained and properly equipped for doing business under improved conditions. Mr. Wanamaker himself contends that the new American system of storekeeping is the most powerful factor yet discovered in compelling minimum prices. It makes short hours of duty, admitting of the employment of a large number of servants, and at the same time it has had the effect of opening up new avenues for the employment of women in such capacities as stenographers, cashiers, typewriters, check-clerks, inspectors, wrappers, and so forth. Above and beyond this it also makes room for a special class of business men, who command salaries equal to those of bank managers and other high-waged officials. These men take charge of departments, and assume a responsibility that is only second to that of the proprietor of the establishment. The number of people employed in the old-time smaller shops averaged about five, and it would require, when the full complement of employés are on the pay-roll of a representative large store, as many as twelve hundred small stores to furnish as much employment as one large Department Store does at the present time, while the total of the salaries would be much higher than under the old shop system.

A NATURAL EVOLUTION.

The evolution of the Department Store has been brought about not by combinations of capital, corporations, or trusts, but, as Mr. Wanamaker contends, by the natural growth of individual mercantile enterprises, born of new conditions, out of the experience, mistakes, and losses of old-time trading. The underlying basis of this new order of business, and its principal claim for favour, is that it distributes to the consumer in substance or cash compound earnings hitherto wasted unnecessarily on middlemen. "I contend," says the merchant prince, "that the Department Store development would not be here but for its service to society; that it has done a public service in retiring middlemen; that its organisation neither denies rights to others nor claims privileges, State franchises, or favouritism of national tariff laws; that if there is any suffering from it it is by the pressure of competition and not from the pressure of monopoly; that so long as competition is not suppressed by law, monopolies cannot exist in storekeeping; and that the one quarter of the globe that cannot be captured by trusts is most assuredly that of the mercantile world."

OPPOSED TO MONOPOLY.

In advancing these arguments in favour of a system that is largely due to his initiation, Mr. Wanamaker evidently wishes it to be clearly understood that the Department Store stands on a very different footing to some of the great undertakings which we are accustomed to call by the name of trusts, and which thrive more or less on monopolistic lines. There is, of course, monopoly of a kind in the Department Store; at least the small shopkeeper, who is driven out of business by its larger operations, is inclined to regard it in that light; still, when all is said and done, it is legitimate trading, and in its effect upon the public at large is advantageous. The change was perhaps inevitable. Shopkeeping certainly stood in need of greater systematising when Mr. Wanamaker opened his first Department Store, and showed the world how it could be done; and the profit that has resulted to individuals from this new order of trading has been insignificant compared to the people benefited both by the cheapening of the comforts of life and by the improved conditions of the persons employed. Mr. Wanamaker puts it in this way, illustrating his position locally: "Philadelphia," he says, "is the buying centre for three million people. If each of them in a year's purchases of personal needs and home necessities saves on an average ten cents a day, the total saving is over £2,000,000 a year. Suppose it be but one-half of that amount, there is still £1,000,000 to the good of the people to be put into their savings or their pleasures." To-day every city in the United States with a population of 100,000 or more has at least one of these stores. New York, it is said, has fifty, and Chicago twenty, Philadelphia and Boston over one dozen each, and Brooklyn about as many.

A NEW YORK VENTURE.

Within the last few years Mr. Wanamaker has had a large Department Store in New York as well as the one he runs in Philadelphia. The New York Wanamaker house comprises the famous store erected by the late A. T. Stewart, which occupies a whole block fronting on Broadway, and was, when it was first erected, considered the most extensive and most wonderful place of the kind in the world. It was here that Mr. Stewart made the greater part of his colossal fortune, dying worth many millions of pounds; and it was here that his trustees for several years after his death did their utmost to carry on the business on lines that the founder had laid down, but ultimately failed, and had to relinquish the business in desperation. It was a crushing blow, and for a time considerably disturbed the course of shopping in New York. When, however, it was found that Mr. Wanamaker had bought the bankrupt stock and meant to take charge of the house, and fill it with goods and conduct it on the same system as that which worked so well in his parent house in Philadelphia, the people of New York knew that they would be well served, and from that time to this the Wanamaker New York Store has been one of the leading trading institutions of the Empire City.

A TALE OF A HANDSHAKE.

As a politician, Mr. Wanamaker has achieved probably all the success that he ever desired. He might have attained almost any position that the country could have bestowed upon him, had he given himself up completely to political life. He was one of the most popular Postmaster-Generals of recent times, and was an exceedingly prominent member of the Cabinet of the Harrison administration. A writer in the *Saturday Evening Post*, referring to this period of Mr. Wanamaker's career, makes special mention of what he calls the Wanamaker official handshake. "The way he received every one," says the writer, "was most satisfactory; but the thing that delighted me was the beautiful manner in which he got rid of a visitor. His farewell handshake was courtesy and geniality itself, but at the same time it was a gentle push towards the door. It was done in such a manner that nobody could possibly take exception to it." This gentleman at a somewhat later period became Governor of his own State, and tried to introduce the Wanamaker handshake on his own account. He attempted the experiment first on an old political supporter, grasping his hand firmly, and with his best smile giving him a gentle push towards the door. But the result was not altogether what he had anticipated. The old political supporter stood stock still, gazed at the Governor steadily, and then said: "It's all right, Governor, if you want me to go, but I don't want to be thrown out." "It was the first and last time I tried the Wanamaker handshake," the Governor afterwards explained. "He can do it, but I don't believe that there is anybody else in the world who has the subtle genius necessary to perform it successfully."

A TRUE FIGHTER.

It would be beyond our purpose to trace the history of Mr. Wanamaker's many political fights, but he has such a keen scent for a wrong that he never leaves go of one, no matter who is supporting it, until he has at all events disclosed it to the public gaze. It may be beyond his power to get it remedied, but he has performed his duty by exposing it, and in that way has satisfied his own conscience, which goes for a good deal with John Wanamaker. He has at times been so active and so vigorous in pointing out the corruption of certain governing bodies and public men, that on more than one occasion he has been subjected to serious personal attack.

THE MOST HEAVILY INSURED MAN IN AMERICA.

Addressing a meeting of insurance men a few years ago, he said: "One of the first things I did after coming of age was to insure my life. I was insurable, and accident or ill-health might come at any moment, when I should not be insurable. I came to the conclusion that life insurance was one of the best forms of investment, because it gave, after one deposit, an instant guarantee that might repay principal and interest and more; that life insurance in the long run was a saving fund that not only saved, but took average care of my deposits, and took me into partnership in possible profits that not infrequently returned principal and interest and profit; also, that an investment in life insurance was, regarded from the standpoint of quick termination, more profitable than any other investment I could make." To-day Mr. Wanamaker is the most heavily insured man in the United States, so that in this matter, as in others, he is a practiser of what he preaches. When he addressed the meeting referred to, his life insurance amounted to £305,000, all of which, except £12,000, had been taken after he was fifty years of age. In 1887 he increased his insurance by £290,000. The risks are distributed over many companies in the United States, Canada, and Europe. Mr. Wanamaker is a man who is thorough in everything.

THE STORY OF JOHN W. GATES

A STEEL AND WIRE FINANCIER

JOHN W. GATES, of Chicago, has had more hard things said about him during the past year or two than have been said about any other man in America probably—that is, any other man out of politics. In March 1900 he was the president of the American Steel and Wire Company, one of the great trust combinations concerning which so much is said and written in these days. This company, which was formed in January 1899, represented a consolidation into one enterprise of over twenty different concerns, had an authorised capital stock of £18,000,000, and so far as it had gone, had paid good dividends. The various mills of the company had a daily capacity of 4000 tons, and times were good, and the general impression was that the undertaking had a prosperous future before it.

A SUDDEN "SHUT-DOWN."

Suddenly, however, without the sounding of a single warning note, Mr. Gates ordered the whole of the works to be "shut down," and four thousand workpeople were instantly deprived of employment. It was not notified how long the "shutting down" was to last, and when asked to explain the reason for his act, Mr. Gates simply said, "Our company is running this business, without any need of explaining, and we shut down and open our mills when we see fit." It was afterwards added that there had been an over-production at the mills, but this attempted justification was not accepted, it being denied that such was the case. Only a very short while before this collapse, statements had been published showing immense business on the order books of the company. But this announcement of the closing of the mills, which fell like a thunderclap upon the dismayed stockholders, and had a startling effect upon the stock exchanges of the country, had the result of causing a sensational "slump" in the company's stock, which fell several points on the day of "shutting down." A great outcry was raised, Mr. Gates left Chicago for New York, and for a couple of weeks or so there was such a manipulating of American Steel and Wire shares as had never been known before. Every paper in the Republic assailed Mr. Gates, and a prosecution of him was undertaken, but it fell through. What the true secret history of that piece of industrial manœuvring is can only be conjectured. It was said, however, that when the American Steel and Wire mills resumed running John W. Gates was a richer man by a million or two than he had been when the mills were closed, among his winnings of that brief period, as stated by his secretary in a letter to the *New York Herald*, being a sum of from £60,000 to £80,000 on a rise in certain railway stocks. What he realised on the manipulation of the shares in his own company was not stated —at least not so authoritatively.

MANY FIERCE ATTACKS.

Mr. Gates, however, is probably not so black as he has been painted. If he were, as the *New York Times* insisted, he ought to have been put in jail. The *New York Journal* said: "Gates, a man without moral training, unscrupulous, brutal, and vicious, has been led to believe that this is high finance. He is indifferent to public opinion, and without the restraint of self-respect, so when he enters the Havemeyer field, he makes his campaign savagely and openly, with a swagger of defiance." Similar attacks were made upon him from every quarter, and he was accused of an act of callous wrecking for his own personal ends. He lived through all this abuse, however, making little or no attempt to ward off his assailants, went to Europe and had a "good time" at the Paris Exposition and in London, and eventually returned to Chicago to resume his old place of financial operator, and was as happy and self-satisfied as if never a hard word had been uttered against him. He relinquished the chairmanship of the American Steel and Wire Company, but without that office he still finds plenty to do in the way of "financing," and has a finger in very many pies, out of which he contrives to pick numerous valuable plums. He had much to do, moreover, with that great amalgamation the Billion Dollar American Steel Trust, his old company being absorbed by that organisation, greatly to the profit of Mr. Gates.

AN AGGRESSIVE BEGINNING.

Mr. Gates is another of the men who have made their way into prominence from small beginnings. He is an Illinois man, and led a rural life through the years of his boyhood, when farming was a much more familiar matter to him than finance. Born in 1855 in Dupage County, and obtaining such schooling as naturally falls to a country-bred lad whose surroundings are humble, he early showed a disposition for business affairs, and began his active career by securing an engagement with a hardware firm. From that he proceeded to the barbed-wire business, and after a few years' service in various capacities, during which he acquired a full knowledge of the processes and of the working of such a concern, he made bold to set up a wire establishment of his own, in conjunction with a moneyed partner, a Mr. Edenborn. He assumed an aggressive, fighting attitude from the first. It was not in his nature to enter quietly into the business ranks and work his way up modestly. He did battle at the outset with the biggest firm in the trade—Washburn & Moen—who were the leading manufacturers of barbed wire in the country, owning many valuable patents, and practically controlling that class of business. They had a monopoly, in fact, and the first thing that Mr. Gates set himself to do was to break down this monopoly. It was no easy task, and would necessarily involve much litigation, but Mr. Gates thought he saw his way to accomplish his intent, by hook or crook, and made a bold and daring dash for it.

A TIME OF FIGHTING.

To begin with, he and Mr. Edenborn established a barbed-wire factory up in the mountain country of Missouri, putting in machinery almost identical with that used by Washburn & Moen, and before long the new firm were putting barbed wire on the market at prices 25 per cent. lower than those quoted by the older firm. These tactics aroused the anger of the latter, who set the law in motion and obtained an injunction against Mr. Gates and his partner, restraining them from working their machinery, which the court ruled was an infringement upon Washburn & Moen's patents. When the officers went down to the Missouri country to serve the injunction, however, they found that Mr. Gates had moved himself and his machinery and belongings across the river into the State of Illinois, where the injunction was inoperative. From this new coign of vantage Mr. Gates continued to make and sell barbed wire, and Washburn & Moen invoked the courts again and again to prevent him, but in the end Mr. Gates came out the victor, and the patents were declared invalid.

It was in this way that Mr. Gates got his first start, and when once he had disposed of the opposition of Washburn & Moen he rapidly extended his undertaking, venturing upon other wire mills in St. Louis and Pittsburgh, in which places he was able to secure additional local capital. For ten years Mr. Gates devoted himself with rare energy to the prosecution of these enterprises, fighting all the time against the older firms, and, as a rule, getting the better of them. Anyhow, his business prospered. From 1888 to 1898 he flitted to and fro between Chicago, Pittsburgh, and St. Louis, keeping in close touch with and directing the operations of the scattered mills with as much apparent ease as if they had formed one establishment; then, in 1898, there came a time when it occurred to him, having a view to the general tendency of things in America, that there was a good stroke of business to be done by effecting the consolidation of his own and other wire and steel concerns, and he set to work and succeeded in absorbing into one gigantic trust combination a number of powerful undertakings, including those of the Washburn & Moen Company. Thus the American Steel and Wire Company came to be organised, Mr. Gates' handling of which has provided the press and the public with so much food for gossip and comment.

A GOLD-BRAIDED COLONEL.

From that time Mr. Gates became a prominent man in the business and financial circles of Chicago, and Wall Street came to know him as a man who had to be seriously reckoned with. Indeed he was very much in evidence one way and another, becoming something of a public man as well as a man of business. For some few years prior to the formation of his big trust he had loomed large on the Chicago commercial horizon by virtue of holding the position of president of the Illinois Steel Company; and on the social side had secured the favourable notice of the State Governor, Governor Tanner, who appointed Mr. Gates one of the colonels of his staff, associating with him in the similar honour such men as Isaac Elwood, another millionaire barbed-wire manufacturer; John Lambert, the steel magnate; and Joseph Leiter, the hero of the wheat "corner" of a year or two ago, and brother of Viscountess Curzon. It is well known that colonels come cheap in America, but this particular quartette, any one of whom was in a position to draw his cheque for millions, made their colonelships a rather costly affair, and when, all braided with gold and rigged out in lavish military finery, they went to Washington as their State's representatives at the inauguration of President M'Kinley in 1897, they caused a good deal of a sensation. But in those days, as now, there was nothing too big for Mr. Gates' ambition, and he got himself talked about and written about as few other men were able to. The Washington antics drew down upon Mr. Gates and his friends no little ridicule, but Mr. Gates is as impervious to ridicule as to praise, or as to the adverse criticism of his financial methods. He has an enormous capacity for exertion of all kinds, and performs the most amazing tasks without apparent fatigue or mental disturbance, while his courage is unquestionable. What the world may think of him or his projects never troubles him for a moment, and he has such a high-handed style of brushing away opposition that, as might be expected, he is fiercely and unceasingly hated by many of his contemporaries. These foes call him vulgar, coarse, unscrupulous, pretentious. It even offends them that he is so persistently healthy, and that the sheer joy of living is such a great force with him. They say he is simply a well-conditioned savage. Remarks are freely indulged in by this class of critic as to Mr. Gates's style of speech; his grammar, they hint, is astounding, and as for his tone, it is loud, dictatorial, and fireworky. They even object to his being a big man; object that he is a big eater, a big drinker, a big smoker, and a big enjoyer of all the material pleasures of life. His brand of cigars, it is asserted, is specially made for him in Cuba, the cost of his cigars being at the rate of three shillings and fourpence apiece. Still, with all his boisterous life, his aggressiveness, and his largeness, it is acknowledged that he is not a snob. He may be cynical, but he is openly so. He asks no favours, and he grants none. He pays all his debts, and insists that everybody that owes to him shall pay—to the uttermost farthing. For what is called society he has no yearning whatever, and would probably not put himself to the trouble of walking across the street to gain all the social prestige that New York and Chicago between them could confer upon him. He belongs, in finance, to the school of the late Jay Gould rather than to that of the high and superfine money-makers. That he is a gambler—a born gambler—goes without saying. The old stagers of Wall Street describe him as a big, roaring creature, plunging, tearing, raving about in the market, raiding other people, and playing pitch and toss with finance generally. "To the world," says one of the wire and steel man's critics, "John Gates is a man without the bowels of compassion, but in the domestic relations he is a model son and father." This and many other qualities doubtless stand to his credit with those who know him intimately, but on the public side he presents the rougher surface only, and simply doesn't care.

PERSONAL CHARACTERISTICS.

A well-known Chicago man, Mr. J. O'Donnell Bennett, not long since attempted a pen-and-ink portrait of Mr. Gates. It was just after the closing of the steel and wire mills. John W. Gates, he said, "is a bundle of wire-nerves and steel energies. He can go to his office at nine o'clock in the morning and work like a fiend until five, then play poker all night. You can see him walking down Wall Street (New York) or La Salle Street (Chicago) with four or five men around him, he talking to all of them at once, his arms waving, his face purple with eagerness, ideas, advice, schemes, coming from him hoarsely in crippled English. You can see him in his office dictating to three secretaries; bending over the shoulders of a telegrapher, telling him what to wire to a man in Chicago or New York, according to which of the two towns Gates is in. I say dictating to the operator. Yes, for the man puts as little as possible on paper. He may have no particular distaste for documentary evidence, but he regards it as, let us say, superfluous. In his office in the Rookery Building, Chicago, he has twenty telephones, but he never talks over them to anybody save in some very special case when he is called up to talk with some important personage in New York. Most of what he has to say he telegraphs, and has two private wires connecting him with his New York office. His staff consists of three private secretaries and thirty-five assistants, to whom his word is law."

As to Mr. Gates' personal appearance, Mr. O'Donnell Bennett has this to say: "His clothes are made to fit him with such extreme snugness as to lose all semblance of elegance. When travelling, as he is half the time, he wears a nippy little travelling hat of felt, a kind of fedora. At other times his headgear is a wide-brimmed slouch, which he wears constantly in the office and out. In summer he affects a comfortable Panama straw, which gives him the aspect of a Southern planter. He removes it frequently to mop his brow with a big handkerchief. He has a mild passion for coloured shirts, and invariably decorates them with a diamond of barbaric elegance and size. He wears short sack-coats, and does not strive for dignity in his apparel. He is fifty years old and does not look it. He can hate to the death, but that is a passion which he employs more as a luxury than as a habit."

HIGH STAKES.

It has been said that he is a gambler, but as for that, are not all the men of high and low finance gamblers? He is rich enough to be able to indulge this pastime, and if he loses he pays up like a man. It is often related of him that, on a certain memorable occasion two or three years ago, he and Joseph Leiter played a little game of poker at the Waldorf Astoria in New York, and they played so long and so high that by the time they had finished £40,000 had passed from the pockets of Joseph Leiter to those of John William Gates.

When running round the country with Governor Tanner, during the joyous period when Mr. Gates shone as a colonel of the gubernatorial staff, they say he used to play poker constantly with the Governor, and the winnings and losings on those journeys are understood to have been large. It is also said that while making his trips to and fro between city and city in the States of New York and Pennsylvania, when effecting arrangements with the various mills that were brought within the American steel and wire combination, he played poker on the train so energetically and successfully that by the time the deal was completed his winnings aggregated into millions of dollars. He plays with stocks when he can, but failing stocks he plays poker, and failing poker he will welcome any other game of chance, and doesn't care whether his opponents are millionaires or railway porters.

Lordly Business Ways.

As has been indicated, Mr. Gates spends a great portion of his time in travelling between Chicago and New York, seldom remaining a week on end in either city. He believes in doing as much as possible of his own work himself, and trusts little except routine work to his assistants. He is always on the alert for fresh deals. For instance, during the negotiations for the formation of his big trust, he and his co-director, Mr. Lambert, had to proceed to New York to push the organisation forward. Several big plants had come into the scheme, and had paid for their stock, giving Mr. Gates some £600,000 to £800,000 in hand to the credit of the company. The two men occupied a private car, and as the train approached Pittsburgh Mr. Gates suddenly turned to Mr. Lambert and said, "What are we to do with this money? It will get rusty lying idle." "What do you suggest?" inquired Mr. Lambert. "Oh," replied Mr. Gates, "let's get off at Pittsburgh and buy another mill or two." Acting on this idea the journey to New York was interrupted, the pair remaining over at Pittsburgh. There was one particular mill that Mr. Gates had no desire to sell. They were informed, however, that there was a mill in Cleveland that might possibly be purchased. Without more ado, Mr. Gates took a telegram-form from the desk and wired to Cleveland there and then, asking the price of the mill. The answer came in half-an-hour: "One million dollars." Mr. Gates at once telegraphed back, "All right, will take it; come to Pittsburgh to settle details." This was Mr. Gates' lordly way of doing things. On that trip he and Mr. Lambert acquired three or four other mills, paying cash for them if they would not take stock in the new trust, thus effectually getting them out of the grasp of the rival undertaking, the Federal Steel Company, which included the Carnegie and Frick interests.

MR. GATES' TICKET SYSTEM.

Mr. Gates, as has been shown, is indifferent to public opinion, the fear of which never restrains him from doing anything that he has set his mind upon. In all his business relations he is more or less of a despot; kind and courteous in a way, it may be, to those who are in direct personal touch with him, but, like so many other American employers of labour, he regards the general body of workmen as little more than machines. Some time ago, while in control of the Illinois Steel Works in South Chicago, he issued an order to the effect that the thousands of people employed in the mills were no longer to be known or entered in the company's books as individuals, but instead of bearing names they should be known only by numbers, each one being required to wear a numbered badge or ticket, which was to be a sufficient mark of identification. The workmen themselves made no open protest, inasmuch as to have done so would have lost them their employment, but the news got spread abroad and there was a great outcry against this method of treating the iron and steel workers. Mr. Gates was belaboured mercilessly in the columns of the local newspapers for ticketing his workpeople as if they had been so many convicts, but Mr. Gates gave the characteristic reply that the rules for the government of the works were his own, and he denied the right of any one outside to interfere between himself and his men.

It is not, however, in the mere running of industrial concerns that Mr. Gates has made his large "hauls" in recent years, but by his daring financial moves, and sundry operations of great magnitude in connection with the manipulation of stocks and shares. He is undoubtedly clever at this kind of work. He sees a long way ahead, and can scent out what is called "a good thing," even though it may lie hidden away beneath an enormous mass of debt and embarrassment. A few years ago, for example, the Kansas City, Pittsburgh, and Gulf Railroad was driven to serious straits by mismanagement and other causes, and although the stock was terribly depressed and got hardly any sort of a showing on the Stock Exchanges, Mr. Gates and his associates—"the Gates crowd," as they are termed—ventured into speculation, bought up all the depreciated stock they could get hold of, and in fact became masters of the railway. To the general investing public it seemed that the financiers had burned their fingers, but Mr. Gates knew what he was doing, and with the money he and his friends were able to put into the undertaking they soon infused new life into the neglected line and began to make money where their predecessors had only been able to pile up liabilities. For a transformation of this description Mr. Gates gets plenty of credit, and doubtless deserves it, and if all his transactions were on similar lines the probability is that his critics would be less severe upon him.

As regards the great *coup* of the spring of 1900, which brought down upon him so much fierce denunciation, deserved or undeserved, there is little to be added that can in any way clear up the mystery of the business.

Helping his Friends.

As the leading spirit of the far-reaching combination which resulted in the formation of the American Steel and Wire Company, Mr. Gates was looked upon as a man of decided power, and his influence was much sought after by the politicians of the Democratic party, who were more or less in touch with him during the reign of Governor Tanner. Mr. Gates was believed in to such an extent by these politicians that when the combination came to be formed they readily availed themselves of the promoter's "tips" and invested largely in the capital stock of the concern, and there is no denying that on that occasion Mr. Gates helped them to a "good thing," for the shares ran up on the market to a point considerably above par, when the politicians for the most part took advantage of the favourable moment and made lots of money by selling out at the proper time. No one suspected that there was any particular risk in connection with these shares until the sudden action which brought about the closing of the mills, a step that was taken entirely on Mr. Gates' own prompting, on his own responsibility, and by his own personal order, without a meeting of directors to authorise the closing. An immediate "slump" in the stock took place, and the general body of shareholders were panic-stricken. Two days later a hurried meeting of the board of directors was called together in New York, when Mr. Gates excused his action on the ground of over-production, which others declared did not exist; but whatever may have been the real opinion of the directors upon Mr. Gates' dictatorial move, they saw fit to order the re-opening of the mills immediately afterwards. Drawing their conclusions from this speedy reversal of Mr. Gates' action, the public complained that the whole business was nothing more or less than a "trick of finance." The press was unsparing in its condemnation of Mr. Gates. The *Chicago Chronicle* thus summed the incident up: "Whatever the motive of Mr John W. Gates was, what he desired was accomplished by the closing of the mills. Otherwise they would not have been closed. It is said he wanted the stock to fall in price—that he had planned to execute a great financial *coup* which pinched several of his friends, supposed to be on the 'inside' but entirely ignorant of his move until it came. However that may be, Gates did as he desired, as usual. What the directors did afterwards could have no possible effect upon what had already been done in the stock market."

At the present time Mr. Gates is active in many different financial fields, and does not disdain now and again to take a turn in English speculation. In fact, he is understood to be considerably interested in some of the schemes now on foot for providing London with improved means of transit. He has intimate relations with the Morgans, the Seligmans, and other money magnates of Wall Street, as well as with the great industrial leaders of the country. His methods may not reveal the gentleness and consideration for others that some people expect even in a financier, but all must admit that he is a man of proved courage and ability, whose knowledge of the often rugged ways of American finance has stood him in good stead, enabling him to amass a fortune of many millions in a comparatively short space of time. A great deal of his financial fighting he has done single-handed, and sometimes against heavy odds, but he has generally come out a winner in the end. He is a fighter first and last, and does not know what it is to accept a defeat. Those who have profited by his *coups* hail him with enthusiasm and call him blessed; those who have lost by them proclaim him a man of plunder and execrate his name; and "so runs the world away."

TOM LOFTUS JOHNSON

THE CLEVELAND TRACTION KING

TOWARDS the close of the Civil War Tom Loftus Johnson was a poor newsboy in the town of Staunton in West Virginia, and when the news was received of the surrender of General Lee, Tom saw and seized an opportunity of turning the news to profitable account. The people of Staunton were greatly agitated and eager for detailed intelligence, but as only one train a day ran into Staunton from the outside world, the citizens were not over favourably placed in regard to having their thirst for news ministered to. The plan which young Johnson put into operation was to effect a monopoly in all newspapers and periodicals coming to the town, and he was enabled to accomplish this by entering into a little conspiracy with the conductor of Staunton's only train, who, after the understanding with Tom had been arrived at, resolutely refused to furnish papers to any one but Tom. This was a very clever stroke, and enabled Tom Johnson to monopolise the whole of the Staunton news trade for his own benefit. He held the monopoly for full five weeks, selling the daily papers at fifteen cents each and the illustrated periodicals at twenty-five cents each. This left him a very considerable margin of profit, and at the end of the five weeks he found himself the richer by nearly £18. It was all in silver, and he felt rich indeed when he was able, by this first capital which he had ever amassed, to pay the expenses of his family, which consisted of his parents and two younger brothers, back from Staunton to their native State of Kentucky.

FURTHER VENTURES.

For a year or two after this newspaper experience Tom drifted about a good deal, and it was not until three years after that he obtained any sort of settled employment, and then he took a position as a clerk at a very small salary in an iron-rolling mill. It was a great change for young Tom to find himself in an office working amongst books and accounts, and for a time he felt very comfortable in his new situation, but it did not serve him for long; a time of depression in the iron trade ensued, and the managers of the mill were compelled to reduce their staff. Tom Johnson had to go, and when the boy walked out of the rolling-mill it was with a sad heart, for it seemed as if the business prospect was closing to him. He bestirred himself, however, and made application for a position first in one direction and then in another, and at last found an opening in connection with Louisville's mule street-railway, where for the first time he had presented to him the highly important problem of street transportation. He took to the work instinctively, and made himself so useful to his employers that he quickly passed from one position to another in the company's service until, after a few years, he became superintendent of the line. While filling this position, he inaugurated many important improvements, and converted the railway from an insolvent enterprise to a highly successful undertaking. When once he had got hold of the reins of power, he set about building up the railway, and before long put it on a paying basis. Is it needless to enter into the merits of the many improvements which he invented, suffice it to say that by improving the accommodation, and by reducing the expenses, he was successful in putting the tramway on a prosperous footing, and began to look around him for higher opportunities.

A FRESH MOVE.

While filling the position of superintendent of the Louisville tramway he married his cousin, Margaret J. Johnson, of

Louisville, and thus had a fresh incentive to ambition. He was only twenty years of age, but the desire for a more active business life was so strong within him that he resolved to leave Kentucky altogether and plant himself in some city that would give him greater opportunities. He therefore intimated to the business head of the undertaking, Mr. Biderman Dupont, that he meant to seek his fortune in some other part of the country, and to his surprise Mr. Dupont, instead of counselling him against such a step, offered him a loan of £6000 as something to make a start with. "But I cannot give you any security, Mr. Dupont," said Tom, amazed. "Oh, that does not matter," replied Mr. Dupont. "Take the money, Tom; if you live I know you will pay it back; if you die, why, I shall be out just so much, but I am gambling on your living."

During all this time Tom Johnson had employed every possible moment of leisure time in improving his mental equipment. He studied hard, having a special inclination towards mathematics but not much taste for light reading. He read history and biography a little, but inclined more to scientific works, such as those of Tyndall, Darwin, and others of the new order of scientists.

MEETING WITH HENRY GEORGE.

It was while living in Louisville that Mr. Johnson made the acquaintance of Henry George. Referring to this incident in his life, Mr. Johnson says: "It was through my father I first met Mr. George. My father had been to hear him lecture, and after the lecture had a talk with him, in which he said, 'Mr. George, I have a son who is a great admirer of yours.' I had been reading Henry George's books then and had talked to my father a great deal about him. So when Mr. George said he would like to meet me I went with my father to his house one night. I said to him, 'Mr. George, I have no way of saying or writing things, I can't make speeches or make books, but I believe I can make money, and I would like to help you on in your work in that way.' He told me not to be so sure I could not write books or speak, and asked me if I had ever tried. I was with him from that time on all through his campaign for Mayor of New York in 1886, during the Doctor M'Glynn time. He was a wonderful man, Henry George. That tremendous mind of his wore out his poor, frail body. It was like putting a thirty thousand horse-power engine into a little naphtha launch."

SETTLES IN CLEVELAND.

Tom Johnson was one of the few men who saw that there was a great future in street railways. His experience in Louisville had taught him this, and his desire was to pitch his tent in some larger city where the opportunities would be commensurate with his ambition. He was resolved at all events upon making money, and with the capital that Mr. Dupont had supplied him with he was in a position to embark upon any good scheme that presented itself with a fair chance of success. He was not of the kind who would be likely to make a plunge with the money, as Mr. Dupont well knew. It was Tom's habit to look carefully around a thing before handling it, and he was more likely to be cautious regarding another's money than his own, for he regarded his £6000 as a sort of trust fund that he had been called upon to invest. His first impulse was to proceed to New York, but on more deliberate consideration he came to the conclusion that one of the rapidly expanding cities in a westward direction would be more likely to give him the chance he was looking for, so he finally decided on settling in Cleveland, Ohio, where he had observed there was plenty of public spirit, plenty of industrial activity, but very little in the way of street railways. So to Cleveland he went, and he has been connected with that city ever since, to his own exceeding profit and to the advancement of Cleveland itself. Tom Johnson had the good luck to strike Cleveland at a time when the City Fathers were disposed to grant favourable concessions for street railway franchises to any one who could prove himself capable of adequately dealing with them, and thus it came about that Tom Johnson was soon in the thick of street railway enterprises in Cleveland, working hard early and late, throwing all his vigour and energy into the work, and succeeding in a manner that more than justified Mr. Dupont's trust in him. In the course of a few years Tom became a rich man, and was not only able to repay his early benefactor the money back that he had lent him, but when one of Mr. Dupont's sons came of age Mr. Johnson gave him an opening and smoothed the way to his advancement. When still another young Dupont came along he did the same for him. The friendship between Mr. Johnson and his old employer grew until it became almost like an affection between father and son. Mr. Dupont to-day makes his home with Mr. Johnson as one of the family, and one of the finest suites of rooms in the Johnson mansion is reserved for his use.

ALWAYS A STUDENT.

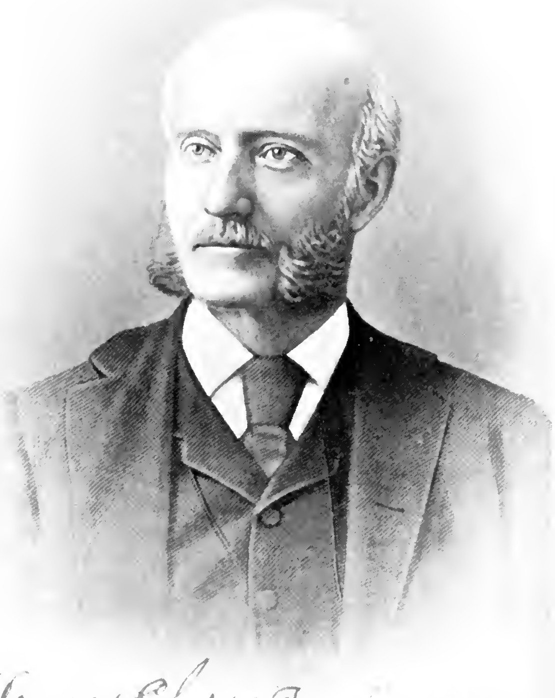
Tom Johnson is a man who, although he has an abundance of self-confidence and knows his own mind about most things, is still conscious of there always being something to learn in the world. The self-made man as a rule is not much troubled about his want of scholarship. The fact that he possesses money seems to him to be all-sufficing. Tom Johnson, however, reads a great deal and takes a lively interest in all that is passing. More than that, he has in recent years become an active participator in public events, and on the encouragement of Henry George devoted himself to public speaking at intervals, becoming a really acceptable platform orator of the semi-socialistic type to which he belongs. At one time when he was running for Congress for Cleveland he was challenged to a joint debate in the campaign, and not only accepted the challenge but gave a very good account of himself in the contest. As a politician he has made considerable headway, and is at the present time Mayor of Cleveland, the city for which he has done so much and which has done so much for him. It is thought that his ambition reaches much higher than the mayoral chair, and that in future political campaigns he may be found figuring as a candidate for State or perhaps national honours. As an instance of his continued studentship it may be mentioned that not long ago a document in French turned up in the Mayor's office and there was a talk of sending it out to be translated, but the Mayor said he thought he could read it; and he did read it, and that same day one of the Cleveland evening newspapers published the story about Tom Johnson being a French scholar. When Mr. Johnson was spoken to on the subject he said, "Now, I did not intend to say anything about that, but it is true enough that I did begin studying French two and a-half years ago and have kept it up ever since. I began with the idea that I would learn to speak it before I learned to read it, and I did. The result is that I can understand it a good deal better than I can speak it, and I can speak it a good deal better than I can write it. But I keep pegging away at it all the time. I never miss my daily French lesson. Even during the thickest of the last campaign I did not miss a lesson. I have a Frenchman in my employ and I study with him. He does a little secretary work for me. I dictate letters to him in French, and after he has put them into real French for me they are first-rate. The last time I was over in France I made my own way without an interpreter, and that was some satisfaction. I have not got to reading French books as yet though."

A PICTURESQUE MAYOR.

To-day Tom Johnson holds the position of Mayor of Cleveland. He is proud of it, and his fellow-citizens are delighted to see him in the office. He is as indefatigable a worker at the dingy old city hall as he has been for so many years in his own business office, where so much has been transacted for the betterment of his fortune. At present he has no other business than that of being Mayor of Cleveland, having cut himself loose from all former business connections. When he entered upon the office he declared that he was not going to be a freak Mayor, or to play with any crank ideas, but proposed, so far as he knew how, to apply plain business principles to the administration of the Mayor's office. He is great on the subject of equal taxation, and before he was elected Mayor he set competent men to work to make maps of the city by sections that would show what each parcel of property was assessed at. His object was to reveal the glaring injustices and inconsistencies in the method of assessment, so that everybody could see how they operated. The maps were intended to be hung in the city hall, where all citizens could have access to them. He said, "I want to see an application of straight business methods in this matter as well as in everything else connected with municipal economics. That is progress, and progress is the thing I am for. That is why I am not a reformer. Reform progresses backward."

AN INDIVIDUALITY.

Mayor Tom Johnson is not yet fifty years of age, and is in the full vigour of manhood. He is a big, deep-chested man of the square-jaw type of physique, with a frank bonhomie and heartiness that count for much in his dealings with people. He possesses a rare stock of enthusiasm, and never seems to get to the bottom of it. He is smooth shaven, with a round, full face and a youthful appearance. His hair is dark brown and curly, with just a touch of grey beginning to make its appearance. His eyes are large and gentle, without a hint of the grim resolution of purpose there is behind them. There is one thing that people notice, and that is when they take his hand it is not the strong, blunt-fingered hand that one naturally associates with the type of man he is, but a rather delicate hand, soft and slender; but when you get down to the substantial square-toed boots which cover the feet, and are not strangers to the tops of desks when his honour sits down, there is nothing to suggest sentimentality there. They are boots to kick their way straight through all



Henry Clews

THE NEW YORK BANKER AND FINANCIER

After a Portrait by BRADIN

the average run of obstacles that a man finds in his path in his journey through life—boots that, at all events, have kicked their way to a pretty smooth road for their owner, and are ready and vigorous enough for a lot more exercise of the same kind. He is beyond question popular in Cleveland, and during his two years of office may be expected to do more perhaps for the city than he has ever accomplished before, much as that is. It has been said of him that he has got rather a long string of hobby-horses in his stable which he has not yet brought out, but which he will soon be riding four in the ring; but it may be taken for granted that Tom Johnson, with all his socialistic leanings, and his Henry George worship, has too much common sense in his composition to permit any hobby whatsoever to mislead him. It may not be within his power to become a future President of the United States—though smaller men than he have held that position—but a senatorship ought to be well within his reach, and that will surely be distinction enough for one who started life as a country newsboy.

HENRY CLEWS

BANKER AND FINANCIER

No man in American clubs or its world of finance is better or more favourably known than Henry Clews, the great banker. Mr. Clews comes from an old and highly respectable English family, and was born in Staffordshire. Accompanying his father on a business trip to the United States when not yet fifteen years of age, young Clews was so fascinated by the eminently practical spirit of the people that he obtained his father's consent to enter mercantile life in the City of New York.

In 1864 Mr. Clews' firm subscribed to the national loan at the rate of from five to fifteen millions a day, and Secretary Chase said at that time, "Had it not been for Jay Cook and Henry Clews I could never have succeeded in placing the 5–20 loan." The late Duke of Marlborough paid Mr. Clews a well-deserved tribute when he said to a member of the press that he considered Mr. Clews "the brightest, smartest, and quickest man" he had ever met.

To Mr. Clews is due the credit for engineering and putting vigorously into execution the organisation of the famous Committee of Seventy, which drove the entire Boss Tweed ring out of office to seek refuge as exiles in foreign lands.

He has twice been invited to become the Secretary of the U.S. Treasury, three times to become candidate for Mayor of New York City, and several times asked to stand for Congress. Mr. Clews has never had time enough on his hands to admit of his taking office. His views on public or business affairs, as expressed either verbally or by his powerful pen, are broad and liberal, and are based upon careful study. A book from his pen entitled "Twenty-eight Years in Wall Street" possesses great literary merit. Mr. Clews was for many years Treasurer of the American Geographical Society, and of the Society for the Prevention of Cruelty to Animals at the period when Henry Bergh, its founder, was its president. He was also one of the founders of the Union League Club, and has long been a member of the Union Club, and connected with many other leading organisations. For these notes we are indebted to the bright New York monthly—*Club Life*.

CAPTAIN FREDERICK PABST

KING OF THE LAGER BEER

From a Portrait by STEIN, *Milwaukee*

CAPTAIN FREDERICK PABST

THE KING OF LAGER BEER

THE name of Pabst is written large over the city of Milwaukee, which, as all the world knows, stands on the western shore of Lake Michigan, and, as all the world does *not* know, is mainly a city of brewers and breweries. In addition to being the "location" of the particular brewing establishment which bears Mr. Pabst's name—the largest concern of the kind in the world—Milwaukee contains a Pabst building, some fifteen storeys high, which is in itself a city of offices; a Pabst theatre, where German plays and operas are given in the highest form; a Pabst hotel, capable of accommodating many hundreds of guests; and a Pabst pleasure resort on the banks of the lake, which is reached through a lovely avenue of trees, and is much frequented. To visit Milwaukee without becoming aware of the local potency of the name of Pabst would be impossible, for the city delights to honour the man who has done so much to swell its importance, and there is no gainsaying the fact that, without Frederick Pabst, Milwaukee would not to-day loom anything like so large in the public eye as it does.

In 1844 Milwaukee was little better than a village, but from the first it was more or less of a brewing centre, being chiefly populated by Germans, to whom lager beer is not merely a beverage of luxury but a necessity of life. Had Milwaukee been a city comprising but a small element of Teutons the probability is that it would not have been by beer that it would have become famous, but the Germans know what beer is, and are not satisfied with anything but *good* beer. The average American, whose taste in drinks is versatile, and includes a love for concoctions that would cause milder men to explode, may be put off with very small beer indeed, but it is no use attempting to palm off lager beer that is innocent of malt and hops and very guilty of fiery acids upon a descendant of the Vaterland. Therefore it was by "brewing *good* ale for gentlemen," like Nancy Pancy of the nursery legend, that Milwaukee ultimately achieved fame and prosperity.

How Frederick Pabst became such an influential factor in the building up of the industrial life of this lake-side city, with its Indian name, forms rather an interesting story, in which the element of romance is not altogether wanting.

CROSSING THE ATLANTIC.

Frederick Pabst was born in Thuringen, in Saxony, in 1836. His father, Gottlieb Pabst, was a small freeholder, whose estate was in the hamlet of Nicolansrieth. Encouraged by the stories which reached him from across the Atlantic of the success of some of his friends in Wisconsin, the elder Pabst was induced to try for fortune in the New World; so, turning all he had into money, in 1848 he left the old German homestead, and, accompanied by his wife and his twelve-year-old son, made his way to the small settlement of his compatriots on the shores of Lake Michigan.

The vessels of the North Atlantic ferry did not in those days make the rapid runs that they do now. The ship that conveyed the Pabsts to New York was a leisurely-going tub of the old-fashioned type, but the voyage was a pleasant if a slow one, and made such an impression on young Frederick Pabst that long before they sailed into the harbour of the Empire City he made an inward vow that he himself would one day adopt a seafaring life. But, as things turned out, he had other things to occupy his mind for many a long day to come.

Milwaukee was not over kind to Gottlieb Pabst. His friends were glad enough to see him, and made him and his wife and boy heartily welcome, but somehow the opportunities that the father had expected to meet with did not present themselves, and after a few months of vain effort to establish himself on profitable lines in Milwaukee, he decided to try another field, and moved his family to Chicago. They made the trip to the latter city on one of the lake steamers. Frederick Pabst has often referred to that journey on board *The Lady of the Lake* steamer as one of the most enjoyable experiences of his life, in spite of the circumstances under which it was taken. The inspiriting movement of the ship, the outlook upon the great expanse of water—as impressive in its way as the ocean—the friendly chats he had with the sailors, and the feeling of freedom and independence which the voyage engendered, all conspired to strengthen young Pabst in his previous determination to connect himself one day with the maritime profession.

TRYING DAYS IN CHICAGO.

Misfortune continued to dog the heels of the elder Pabst. Chicago proved even less generous to him than Milwaukee had been. Things went from bad to worse, and in 1849 the circumstances of the little family became so painfully straitened that the united efforts of father, mother, and son barely sufficed to sustain them. And, to add to their ill-luck, Chicago was at this period visited by a severe epidemic of cholera, and amongst the victims of the cruel disease Frederika Pabst was soon numbered. This was the saddest blow of all, but she left behind her a memory of sweet motherhood which her son was never to forget, and which served as an incentive to him to face the world with increased boldness.

It was a trying time for the bereaved father and son, between whom there was always the closest sympathy. No good could come of brooding, however, so young Frederick bravely determined to make headway for himself and do all that he could to help to support his father and keep their little home together. From day to day the boy looked longingly towards the craft that he saw plying on the lake, and would fain have joined one of them, but it was no time for picking or choosing or waiting. Something had to be done at once. So, hearing of a vacancy for an under-waiter at the Mansion House Hotel, Chicago, the boy of thirteen applied for and obtained it. He has himself said that he never felt bigger in his life than when he was made the happy recipient of this appointment, by which he earned £1 a month and "all found." Thus he became self-supporting, and was able to relieve his father from the necessity of providing for him.

For nearly two years Frederick Pabst filled this humble position, afterwards obtaining a better situation of the same kind at another Chicago hotel, the New York House. He never neglected the smallest of his duties while in these establishments, but was always active, courteous, and cheerful, and won much popularity amongst the guests.

GOES AS CABIN-BOY.

But it was not in the lad's nature to be satisfied with small things. Running like a silver thread through his juvenile memories, the recollection of his first ocean voyage never left him, and the sight of the increasing traffic on Lake Michigan turned his thoughts more and more towards ship service. Only one result was possible. He must find employment on one of the lake steamers. Having made up his mind to this step, he lost no time in carrying his intention out, and was soon installed as cabin-boy on one of the Goodrich line of steamers. Thus a partial realisation of his boyhood dreams was brought about, and for a few years he led an exciting and active life. He was fortunate enough to attract the attention of his superiors by his unfaltering diligence and good behaviour, and quick promotion followed. Step by step he was advanced from cabin-boy to steward, from steward to petty-officer, and on and up until at the age of twenty-one he was able to walk the deck as captain of the *Huron*, and doubtless deemed he had reached the summit of his ambition.

Captain Frederick Pabst, of the Goodrich line, was a handsome fellow in those days. He stood over six feet in height, and had blue eyes and a somewhat florid complexion, and his genial manner secured him many sincere friends in his journeyings to and fro between the different ports on the lake. In Milwaukee he was in special demand during his brief sojourns in that growing city, which was destined to compensate him so generously for its previous neglect of his family. Among the leading citizens Philip Best, the brewer, held a respected position, for brewers were beginning to count for something in the lake-side community. Captain Pabst was a frequent and welcome visitor at Best's home, and between the captain and one of the brewer's daughters, Marie, an affection sprang up, which deepened as the months went by, and led to a proposal of marriage. Pabst was not without money. During his service on the lake he had managed to save a nice round sum, and was, perhaps, not an unworthy match for the brewer's daughter, even from a worldly point of view. At all events he married her, and happy enough they would have been but for the frequent separations which his duties as captain of the *Huron* entailed. These absences at last became so unbearable that, deep as was Captain Pabst's affection for the life on the lakes, with its excitements, its toils, and its difficulties, his love for his wife and his home was greater, and he finally decided to relinquish his steamer, and settle down to a business life in Milwaukee.

A New Career.

It may be imagined that this decision was not arrived at without many consultations with Philip Best, for it was a serious matter. It meant the changing of the whole course of Frederick Pabst's life, a giving up of prospects that were by no means unpromising, for not only was he captain of his steamer, but also part owner of it, and cargoes were both plentiful and profitable. Moreover, he had had no training for any other calling. Still, the wishes of his wife and the entreaties of his father-in-law prevailed, and he accepted a position in the brewery, investing in the undertaking the whole of his hard-earned savings, and a still greater capital of youthful energy. Another young German, Emil Schandein, who had wooed and won another of Philip Best's daughters, was also taken into the concern about a year later, and it was not long before the main responsibilities of management devolved upon these two sons-in-law. From the love stories of these two young men sprang the impetus which was to build this comparatively small undertaking to one of unparalleled magnitude.

The Best brewery, it should be stated, was founded by Jacob Best, father of Philip, in 1844, operations being started in a humble wooden building, attached to which was the brewer's equally humble residence, also of wood. Here the careful, plodding Jacob and his four sturdy sons, Philip, Jacob, Charles, and Lorenz, brewed the cooling lager for their townsmen, putting 300 barrels on the market during the first year. The enterprise grew slowly, and after sixteen years of steady toil Jacob Best relinquished the reins of management to his son Philip. This was in 1853. For a time the other sons continued to be associated with Philip, but by 1860 they had all withdrawn, and the business was carried on by Philip alone, who so enlarged, improved, and developed the concern that by the end of 1864 the annual output had reached 5000 barrels.

A year later, Frederick Pabst had entered upon the scene, to be soon afterwards followed by Emil Schandein; and when these two young men had been added to the personnel of the business, it soon became evident that the new blood was about to work a great revolution in the old brewery undertaking. They started forth upon sound principles. Like Philip Best, they believed in the business virtue of an honest brew—not a now and then honest brew, but an unvarying one—and thus the reputation of the product became firmly established. All that remained was for them to push the business for all it was worth, and to command prosperity by deserving it.

Frederick Pabst was not content to merely stick in an office and direct the enterprise from an easy-chair. He resolved upon learning the principles of brewing thoroughly, and, beginning at the very bottom of the ladder, worked upward with an intelligent activity which in time made him master of every detail. Up to the time of Pabst joining the affair, the Bests had been satisfied with merely covering the local requirements; but the Captain had a higher ambition than this, and believed—and rightly, too, as it turned out—that the beer that was good enough for Milwaukee was good enough to be sold in competition with similar products in any part of the world, and he it was who took the first steps towards creating the export trade in Milwaukee lager beer which has since grown to gigantic proportions.

A Strong Personality.

Philip Best retired from the business as soon as he saw that it might be left with safety to the direction of Pabst, who quickly made his personality felt not only in the brewing enterprise but in the city generally, he having been elected an alderman in 1863. Every opportunity of extending the business was seized upon, and the output increased by leaps and bounds, reaching the 100,000 barrel mark in 1873. It was then deemed advisable to form the business into a company, and the Philip Best Brewing Company, with a capital of £60,000, which was later on increased to £400,000, was incorporated. The tide of success rose higher year by year, and by 1889 the sales had grown to 500,000 barrels in the twelvemonth. At this time, as a testimonial of affection for the president, Captain Pabst, and in recognition of his splendid management and business genius, the name of the company was changed to that of the Pabst Brewing Company, and the capital was increased to £600,000.

Another extension of capital was found necessary in 1892, the company having in less than four years more than doubled its output, gaining a position of commanding supremacy and becoming the greatest lager-beer brewers in the world—selling now upwards of a million barrels a year. The capital stock was increased to £2,000,000, and President Pabst called to his assistance in the management of the now stupendous enterprise his son, Gustav G. Pabst, Frank R. Falk, Ernst Borchert, C. W. Henning, and Frederick Pabst, junr., who constituted the board of officers.

In this brief *resumé* of a brilliant industrial success, the student of commercial history will discover something of the secret of modern business development. First, he will observe how the extraordinary increase in the demand for the mild beverage of the Germans has been ministered to and stimulated in the United States. Secondly, he will note that indomitable business energy must be supported by a system of liberality and honest dealing if a great and enduring success is to be achieved. And thirdly, he will mark the necessity under which the managers of a great enterprise of this kind labour of continually improving the methods of production, so as to keep thoroughly abreast with mechanical and scientific advancement; and, above all, he will realise that the supreme control of an affair of this magnitude must be in the hands of a man of great administrative ability, sound judgment, and keen business foresight.

FINE TYPE OF A SELF-MADE MAN.

Captain Pabst has been greatly aided no doubt by clever associates, but his has been the ruling, impelling power all through. His generalship has never been at fault. Selfish tactics and aggressive assertion have had no part in his management. All along he has kept in close touch with his employés, always showing a warm appreciation of their efforts; and thus winning their respect and affection, he has inspired them with a loyalty of service that has been an important element of the general success. No one is ever denied admittance to his presence, for the pride of purse and position has no part in the Captain's composition. He never forgets and is never ashamed of his humble beginnings. Without the advantage of early schooling or intellectual training, he had to rely solely on his natural talent; but being a keen observer, and always intent on the improvement of his mind, he became self-educated in an eminent degree in business enterprise and commercial science, and developed a character of remarkable strength and individuality. He is, indeed, one of the best types of the self-made man. The early severance of home ties, his voyage to America, the hotel experiences of his juvenile days, his hard years of "roughing it" on the lake, and the hardihood induced in his course of discipline as captain, all combined to impart to him an unusual breadth and independence of thought and action. The acquirement of wealth, which with him has been a matter of steady accumulation, resulting in his being a multi-millionaire, and in recent years has been extraordinary in its rapidity, has not dulled his sense of obligation to the world, to humanity, and to his fellow-creatures. His nature remains unchanged. Political life has had no charm for him; his business and his home have mainly divided his attention. A man of commanding presence, he is modest and unostentatious in his habits, dislikes public appearances, and is altogether the sort of manly man that might be expected from one who has fought his way through so many difficulties to his present high position.

A GREAT BREWERY.

Diverting our gaze for a moment from the personal side of the history of this tremendous enterprise, it may be well to endeavour to give some idea of the wonders included within the boundaries of the brewery itself, with its towering buildings and immense plant.

When Jacob Best built the original brewery in 1844 it stood quite on the outskirts of the then village, and from the door of his "frame" house he looked out upon a vast extent of prairie and farming land stretching down to the edge of the lake, and far away on either side could see farm hands at work with their yokes of oxen in the fields; while peeping out here and there from a background of waving woods was a cottage, with its curling smoke rising above the foliage. Not unfrequently a knot of Indians of the Winnebago tribe would make a picturesque group as they returned the brewer's gaze and marvelled upon the work he was doing. There was, in truth, little to suggest the mighty city that was in time to grow over this rural scene.

To-day the Pabst brewery covers about four city squares, and comprises a floor space of more than forty acres, and stands in the very heart and centre of Milwaukee, hemmed in on all sides by streets and structures of imposing extent.

A scant catalogue of the various departments of the brewery is all that we can attempt.

To begin with, there is the heat-generating house, a three-storey building, 100 feet wide, and 150 feet long, with a giant chimney towering to the sky beside it. In this building there is a battery of twenty-four tubular steel boilers, eighteen of which are kept simultaneously at work, and consume nearly 100 tons of coal per day. The power plant comprises two large engines, one of which is capable of developing 1500 horse-power. Its duty is to drive a total length of shafting throughout the works of about 7000 feet. Then there are the two elevator buildings, where the barley is received, cleaned, and stored, with a storage capacity of 500,000 bushels. The malt-house is a structure of eight storeys, and contains immense receiving-bins and steep-tanks. There are malt-elevator buildings, too, of proportionate capacity to the barley-elevators. The main brew-house is 175 feet in length and 62 feet in width, and comprises six brew-kettles, each holding 450 barrels, with huge mash-tubs, cookers, coolers, and other important Brobdingnagian utensils used in extracting the spirit and essence of the ingredients which go to the making of good beer. Near to the brew-house is the wet-grains house, with its enormous cast-iron tanks, its conveyers, and what not. Then comes the grains drying-house, with machines capable of drying about 100 tons of wet grain a day. Another building is devoted to the handling of spent hops. The ordinary water supply is obtained from artesian wells, the largest of which is 1700 feet deep. The pumping engine connected with this well draws up 650 gallons of water with every 100 revolutions. This water is used for cooling purposes only. Another pumping machine supplies the brewery with lake water. City water, by the way, is exclusively used for brewing requirements, and the pumping engines are capable of easily displacing 2,000,000 gallons a day. Another department accommodates an air-compression plant for raking over and elevating beer. There is a refrigerating plant which includes two large machines, each of which has a capacity for melting 300 tons of ice daily. The aggregate daily ice-melting power is 825 tons per day, which could be increased to 1000 tons in case of emergency. There are nine cold-storage houses (formerly called beer cellars), having a total capacity of 400,000 barrels; there are fermenting-rooms, with an aggregate capacity of 80,000 barrels; there are bottle-making, cork-making, and barrel-making departments, in each of which the operations are of bewildering magnitude; there are stables large enough for the housing of the horses of a cavalry regiment; and there are suites of offices of almost palatial appearance. As for the tasting department, with its daily flocks of interested visitors, it is too tempting almost for mention; but when one considers that sometimes the number of visitors in a single day runs up into the thousands, and that each of them, after his or her tour of inspection, is free to quaff any sample of the various kinds of beer of the Pabst brew that may be desired, some idea may be formed of the life and animation that such a rendezvous discloses.

SOME INTERESTING FIGURES.

To sum up the vastness of this brewery undertaking, it will be of interest to give a little story in figures, for which we are indebted to one of the Pabst officials. From this nutshell of tabulation we gather that the actual quantity of beer produced by the company during the past thirty years reaches the grand total of 10,939,944 barrels, which, reduced to gallons, equals 350,079,802 gallons, or, if put up in pint bottles, would require 3,800,638,460 bottles. This number of bottles, if placed end to end, would measure 26,606,055,408 inches, or 2,217,171,285 feet. But as these figures are perhaps a little difficult to grasp, it may simplify matters to reduce the feet to miles, by which process we find that the pint bottles extend over 418,025 miles. If this aggregated product was barrelled, however, in the usual way, and loaded on railway trucks, and these trucks were made into a single train, this train would be composed of 182,333 trucks, requiring eighteen miles of locomotives, or 2604 engines, each capable of hauling seventy loaded trucks, to move it. The length of the train would be 1259 miles, and manned as all freight trains are, it would require the services of 2604 engine-drivers, 2604 firemen, and 7812 brakemen, or a total of 13,020 experienced railway men, to run it. Supposing this train were to make the journey from Milwaukee to New York—if a train that would cover the whole length of line could be imagined as moving at all—the engines would consume 78,000 tons of coal, and the railway company performing the service would render a bill for 2,500,000, or thereabouts.

The amount of money paid in salaries to the various employés during these thirty years must represent an enormous sum. No statements on this head have been published, however, but it has been authoritatively asserted that the company has paid in revenue taxes to the Government of the United States a sum equivalent to the total salaries of all the Presidents, from George Washington to William M'Kinley, and, in addition, a sum sufficient to compensate each President to come at the rate of £10,000 a year for the next hundred years.

The Pabst Brewing Company has over forty branches under the control of the home office, and also some 600 agents who purchase the Pabst beers exclusively, and act as wholesale dealers in them. Its bottled beers are exported to almost all parts of the globe. It is on record, indeed, that an eminent Arctic explorer found an empty Pabst beer-bottle as near the North Pole as any human being has ever penetrated.

In a land famous for big things, this enterprise is undoubtedly one of the biggest. It brews one thirty-third of the total product of the whole country, and Captain Frederick Pabst, the man who has guided it from a small concern to its present greatness, is still its ruling spirit.

THE PILLSBURYS

THE FLOUR KINGS OF AMERICA

"We talk of our commerce, and we boast of our manufactures," writes Mr. Andrew Carnegie, referring to the industrial outlook in the United States, "but the products of the soil are more important than both." In substantiation of this statement it is sufficient to quote the simple fact that while commerce employs over 3,000,000 people, and manufacturers and mining over 7,000,000, by far the largest corps of the industrial army —upwards of 12,000,000—tills the soil. These 12,000,000 agriculturists have charge of between 4,000,000 and 5,000,000 farms, covering a total area of over 600,000,000 acres, valued, with their live stock and implements, at £2,500,000,000, and yielding products of the annual value of not less than £800,000,000. Of the various items which go to the making of these enormous totals, the most interesting, perhaps, are those which are compiled from the records of the wheat and flour industries, for we are all bread-eaters, more or less, and statistics that we can track home to our breakfast-tables must have a special significance for us. The wheat production of the United States represents a cultivated area of 45,000,000 acres, giving an annual yield of 600,000,000 bushels, of an aggregate value of over £50,000,000.

Golden Crops.

What a wonderful story these golden harvests represent! When the Pilgrim Fathers landed on the shores of New England, the vast continent on whose eastern verge they settled was wild, uncultivated prairie, woodland, and desert, and many clearings had to be made and much rough work done before the primitive implements then in use could be brought to bear upon the soil. But from that day to this the great work of farm cultivation has been prosecuted with ever-increasing energy, and every year has brought its fresh influx of pilgrims to get their living out of the land. And yet there are untold millions of acres of field and prairie still remaining in America to be brought under cultivation. With such an immense tract of country given over to agriculture, it was in the nature of things that old and crude methods of farming should be rapidly improved upon, and it is from the machine-shops of the United States that the leading mechanical inventions applied to agriculture have emanated. Every process in connection with the operating of farm lands and the conversion of farm products into their final form of utilisation has been placed at the service of the great wheat-fields of America. For a half a century or more the United States has been one of the chief suppliers of wheat to mankind, and to-day she produces a quarter of the entire crop of the world.

THE RED RIVER VALLEY.

During the period prior to the middle of the nineteenth century, the main portion of the wheat grown in the country was produced in the Eastern States. Then, the centre of production began to move steadily westward, until Illinois, Indiana, and Wisconsin outstripped the Eastern and Middle States in growth of wheat; and after 1860, rapid developments followed in Michigan, Minnesota, Iowa, Kansas, Missouri, Nebraska, the Dakotas, and California; but the greatest production of all was reached in the Red River Valley, which takes within its range many counties of Minnesota and the most easterly counties of the two Dakotas, reaching up into Canada beyond Winnipeg. The whole of this vast area of prairie land is composed of a fertile black soil that once formed the bed or deposit of an ancient sea, and for the last quarter of a century this rich and vast extent of wheat-growing country has been pouring its exhaustless wealth of grain into Minnesota's twin cities, Minneapolis and St. Paul, there to be handled and distributed over the bread-eating nations of the world. This great wheatfield is 232,000 square miles in extent, and grows wheat sufficient to supply Great Britain with all she needs in addition to her own domestic production. If the worship of Ceres were still in fashion, it would assuredly be in the Red River Valley that her chief temple would be erected.

It was inevitable under the circumstances that Minneapolis should become the flour-milling metropolis of the West, and that opportunities should have been afforded there for the building up of great milling concerns; and many came and saw, and few conquered conspicuously, foremost among them being Mr. Charles A. Pillsbury, who, from a starting-point much more humble than that of the famous "Miller of Dee," worked himself into a more commanding position than was won by any of his competitors.

BOYHOOD OF THE FLOUR KING.

Charles A. Pillsbury was the son of George A. Pillsbury, and was born in Warner, Merrimac County, New Hampshire, in 1842. His parents were in poor circumstances, and Charles's boyhood was passed in a very humble home. It was found difficult to secure him the thorough education that he desired, and while taking his course at Dartmouth College he was compelled to resort to teaching part of the time in order to meet the expenses of his training.

There was nothing in his early life to specially fit him for the career he ultimately adopted. Like most other country lads, he became more or less familiar with agricultural pursuits, and helped to till the fields all through his boyhood. At eighteen, however, he was undecided as to what calling he would adopt, although he had made up his mind not to remain about the old homestead. While still hesitating he heard of a vacancy for a clerk in a business office in Montreal, and proceeded to that city and succeeded in getting the appointment. This was a great chance for young Pillsbury, for it was the means of bringing him in touch with the world of trade, and of giving him an insight into commercial methods. He continued in this position for six years, and proved himself so industrious and helpful that he was ultimately rewarded with a partnership. It almost seemed, indeed, that at this time he had attained the summit of his modest ambition, and was about to settle down in Montreal for the rest of his days. He married and took a house, and was looked upon by his friends as permanently fixed in the capital city of the Dominion. This was in 1866.

LIKE FAIRY TALES.

But those were stirring times. He had frequent business dealings with Western America, and had such constant evidence before him of the wonderful developments that were taking place in that region that he often turned longing thoughts in that direction. At other times he had serious thoughts of crossing over to England, for his six years' residence in Montreal had imbued him with strong English sympathies. He often followed with eyes of desire the steamers as they moved off down the St. Lawrence on their outward voyage, and would fain have accompanied them; but in the end he centred his hopes on the West entirely. In Montreal, as well as in all the Eastern States of the Republic, a strong Westward movement had set in. The stories that came in from day to day from the Western wonderland read like fairy tales. What with the railway extensions to the Pacific Coast, the rapid development of Chicago and other cities on the borderland of the New West, and the opening up of fresh gold and silver regions in and around the Rocky Mountains, there was much to attract the thoughts of active and able men to the Middle West.

Mr. Pillsbury at last resolved to move with the tide. He had an uncle, John S. Pillsbury, settled out in Minnesota, near the falls of St. Anthony, having been there since 1855. From this quarter he received such encouraging reports, and so many stimulative urgings to "go West," that there was no excuse for remaining in Montreal any longer; accordingly, in 1869, the important step was taken, and Charles A. Pillsbury and his wife and little family proceeded to Minneapolis, which from that time forward became their place of residence.

A CAUTIOUS OBSERVER.

Mr. Pillsbury was not over flush of capital, still he was not penniless, and in those days and in that region a little capital went a long way, when, as in this case, it could be eked out with brains and energy. For a while he simply "prospected," surveyed the situation, took stock of his surroundings, and reckoned up the various opportunities that lay before him. And when he had taken the full measure of things it seemed to him that the business of flour-milling was the one that offered the best chances; he therefore joined forces with his uncle, who was already established in the business and running a small mill at St. Anthony's Falls, and thus entered upon the special career in which he was destined to achieve such great results.

Charles Pillsbury, however, was never a man of precipitate action; before letting himself go completely in any new venture, he carefully calculated what had to be done, and when he saw his way clearly, and had computed the cost and the probable result, he bent his whole energies to the work. This was his course in regard to flour-milling. After making a thorough study of the methods of milling then in vogue, he could see that those methods left a great deal to be desired, and that to the man who could introduce improvements of system and appliances great realisations were possible. Without being of a specially inventive turn of mind, he had nevertheless a clear perception of what was needed, and made many suggestions which, after being taken in hand by practical mechanicians, were worked into decided successes. At the same time he watched keenly the records of milling in different parts of the world, and every new idea, no matter from whom or from what quarter it proceeded, received a ready welcome from him, and was adopted by him if of real utility.

VALUABLE NOVELTIES.

The first great step in advance that Mr. Pillsbury made as a flour-miller was in taking up what became known as the "middlings purifier," which was a marked cheapener of production as well as an important aid in improving qualities. This was speedily followed by the introduction of the "roller" process, another significant feature of the revolution in milling that was then in progress. And so Mr. Pillsbury went on adding improvement to improvement, until the old mill that had sufficed for the modest operations of his uncle was no longer big enough to meet the demands of the market for the Pillsbury products. The old buhr stones which had ground flour for so long for the uncle were cast out by the nephew, and in their stead the new process machinery was put in, and was soon producing better flour than ever the mill had turned out before, and in much larger quantities. The "new process" flour, as it was termed, found great favour, as it deserved to do, for there was no denying that it was finer in quality and flavour than any other.

Now it was that Charles A. Pillsbury's name rose into prominence in the milling world. Up to that time the Washburn family had been at the head of the flour-milling enterprises of Minneapolis, but they now found that they had a very strong competitor to reckon with in Charles A. Pillsbury, who promised soon to out-distance them unless they became equally alive to the necessities of the hour. Mr. Pillsbury set the pace, and the other millers had to follow or give up the race. So it came about that in a short while all the flour mills of

Minneapolis were altered to the Pillsbury pattern. Up to that time they had all been of the old-fashioned type. They stood on the banks of the Mississippi River, deriving their motive power from the Falls, and all did their grinding with the antiquated buhr stones. Mr. Pillsbury had shown them something better than buhr stones, however, and they did what he had done—cast them out—and before long every flour mill in Minneapolis was equipped with new machinery.

KEEPING THE LEAD.

When once Mr. Pillsbury had obtained the lead in the business he kept it. He passed all his rivals, and they never came quite level with him again. The old mill had to go the way of the buhr stones, being replaced by a larger structure with a greatly augmented power of production, from which for many years were sent out huge quantities of the flour which became universally known as "Pillsbury's Best," and represented the finest and purest yield in the world. This famed flour was made from the choicest of the Red River Valley wheat, and received the special treatment of the improved Pillsbury processes, which included the use of a series of carefully gauged steel rollers. These crushed the grain to a fineness never before realised. In this again Mr. Pillsbury's lead was followed. All the large flour mills in the country adopted the process, which, while insuring increased economy of working, gave them a greatly improved quality of flour.

Charles A. Pillsbury had found the occupation that exactly suited his abilities. He was in the forefront of every stage of advance, and gained success upon success. Not only was the business of milling revolutionised, but great changes were brought about in wheat-growing. The hard spring wheat which had theretofore been less highly esteemed than the soft winter varieties of more southern latitudes could now be treated as advantageously as any other. By the new processes, wheats which had been regarded as inferior were made equal to the best by extra refinement of treatment, to the great benefit of the farmer. All this time, while the output of the mills of Minneapolis went on increasing, the productiveness of the Red River Valley was extended in a corresponding ratio. Each season saw a greater harvest of the golden grain poured into Minneapolis, which became the largest flour centre of the world.

PROSPERITY AND EXPANSION.

By 1872 matters had prospered so well with Charles Pillsbury, and the old business founded by his uncle had grown to such proportions and promised so well, that he felt justified in bringing his father into the enterprise, and the three Pillsburys formed themselves into the firm of Charles A. Pillsbury & Co.; fresh mills were added to the concern, and a career of prosperity was entered upon that made the name of Pillsbury more prominent than ever. The Pillsbury brand of flour found its way into all parts of the globe, and everywhere was received as the best that could be produced.

Thenceforward the history of Charles A. Pillsbury and the story of the expansion of Minneapolis became in a great measure identical. Four new mills were added to the original one, either by purchase or lease, each of them being of immense magnitude, and incorporating all the newest ideas in milling. The names given to the new mills were the "Pillsbury B," the "Empire," the "Excelsior," and the "Anchor," and as they stood forth in their solid, many-storeyed pride, flanked by gigantic elevators and other buildings, they added greatly to the glory and importance of the city. These great mills meant increase of prosperity for Minneapolis. They meant more trade, more population, more railway transportation, more streets and public buildings, more houses and shops, and more money. The mills, which abut upon the Falls and canal, form the centre of the picture, the city spreading out on both sides of the Mississippi over a picturesque plain that reaches out to a lovely country of diversified pasture, woodland, and lake. During the thirty years covered by the Pillsbury combination Minneapolis has grown from the meagre proportions of a struggling town to those of a far-spreading, well-built, and populous city, extending, with elbow-room for nearly every dwelling, over fifty-three square miles of territory. It is very English in its aspect, and has won the title of the "city of houses." Mr. Charles Pillsbury himself lived for many years in an old house of comfortable dimensions near the Falls, and there his twin boys were born. In later years he occupied a handsome stone mansion in Stevens Avenue.

CO-OPERATION PRINCIPLES.

There is one feature of Mr. Charles Pillsbury's business career which calls for special mention. He was always a supporter of the principles of co-operation, believing in the benefits of association and combination wherever they could be usefully and practically employed. He has not wanted the world for himself, or even the flour-milling business for himself. While always a persistent rival in trade, he was never one to force an undue advantage. "Live and let live" was his motto. Therefore, when he saw it would be to the general interests of the milling trade that a combination for mutual action in dealing with wheat-growers should be established, he warmly advocated such a course, and, mainly through his prompting, the Millers' Association was organised, whose agents have ever since been scattered about the great grain fields of the North-West, inspecting, reporting upon, and buying on the order of members such stocks of wheat as may be required. By this means only the best wheat gets to the Minneapolis market, all inferior grain being rejected. This association had a marked effect, and an entirely beneficial one, upon the flour-milling business, and also upon the business of wheat-growing. Farmers could no longer afford to neglect their wheat-fields, but were compelled to adopt the agricultural systems by which the highest results could be obtained. In this way the art of wheat-growing was made to advance in step with the art of wheat reduction. The plan of association was again brought into play when it became necessary to erect a system of grain-elevators for storage and shipping purposes. The Pillsburys were never the people to push their own interests selfishly, but always showed a willingness to co-operate with their rivals in promoting the general benefit of the trade. On Mr. Charles Pillsbury's suggestion, therefore, the Minneapolis and Northern Elevator Company was organised, this being the first and most important of its kind, and Mr. Pillsbury was made its president, and continued to fill that position for many years. The gigantic buildings of this concern may now be seen scattered over all the grain-growing sections of Minnesota and the region tributary to Minneapolis. There are between thirty and forty elevator companies in Minneapolis at the present time, controlling over 1800 elevators in the wheat-growing districts, having a combined capacity of some 50,000,000 bushels of grain. When the various cargoes of wheat are lodged in the elevators, receipts are given to the owners, and can be dealt with like scrip, being accepted by the banks and forming the main basis of trade operations. The Pillsburys built for themselves immense storage warehouses, in addition to their mills, and within a few years of the family partnership being formed the Pillsbury flour buildings were among the wonders of the city.

NOTHING HASTING—NOTHING RESTING!

But Mr. Pillsbury never rested, no matter how rapid the advancement of the firm's business might be. The more the output increased, the more did he prepare for. He was always on the alert for further extension. He knew that in a country so active in its business developments as America that to stand still was to lose ground and permit his competitors to pass him; so the work of enlarging their operations went irresistibly forward, until, in 1880, it was incumbent upon them to erect another mill. Before entering upon this undertaking, however, Mr. Pillsbury resolved upon a trip to the Old World for the purpose of instructing himself in regard to European methods, and ready to adopt any improvement that they might suggest to him. In England he learned nothing, in France and Germany next to nothing, but at Buda Pesth, in Hungary, where the finest flour in Europe was produced, he came in contact with a stupendous system of milling from which he was able to glean a few useful "wrinkles." True, there were not many things even at Buda Pesth that he had not been acquainted with before, still he got something, and, returning to Minneapolis, set about the building of the famous mill which, on its completion, became known as the "Pillsbury A." This mammoth mill was built under his special direction, and when it was set to work in 1882 it was acknowledged on all sides to be the finest mill of the kind in existence. When first started it had a capacity of 5000 barrels of flour a day, but this was afterwards increased to 11,000 barrels a day. As one enthusiastic American said of it: "It was the largest and best flour mill under the canopy of the sky." It proved to be the pride of the firm and the despair of every other firm of millers. At the present time there are over thirty flour mills which lift their imposing proportions above the Minneapolis landscape, but the most impressive group is that which comprises the mills and warehouses erected by the Pillsbury firm. The combined production of these mills amounts to about 25,000 barrels of flour a day, which is the largest contribution of any one firm to the bread consumption of the world.

BECOMES STATE SENATOR.

Mr. Charles Pillsbury, as was to be expected, grew to be a man of commanding importance in Minneapolis and the great wheat region to which that city is the gateway. Repeated attempts were made on the part of his fellow-citizens to induce him to accept high positions of public honour. The Mayoralty was several times offered to him, but he declined it each time.

The only office he ever consented to fill was that of State Senator, which he held for ten years, from 1877 to 1888. This, though an important post, did not prevent him at the same time keeping up the active direction of his large business interests. While in the Senate he was chairman of the Finance Committee for nine of the ten years of his Senatorship, and amongst the many duties that fell to him was that of taking charge of a Bill, introduced by his uncle, John S. Pillsbury, who had been elected Governor of Minnesota, for the adjustment of the State Debt, a measure which he piloted through the House with great tact and ability.

As has been stated, Mr. Pillsbury was always a staunch believer in the principle of co-operation, and not only did he effect certain combinations on the part of proprietors of milling establishments that were of general benefit to the milling industry, but he introduced a system of profit-sharing into the Pillsbury mills which worked with very satisfactory results. By this means such friendly relations were established between employers and employed, that in the whole history of the Pillsbury enterprises there is no record of any strike or other labour trouble. To begin with, the men were paid liberal wages, and, at the end of each working year they were awarded a certain commission on the profits of the concern, which generally represented an aggregate of many thousands of pounds.

THE FLOUR SYNDICATE.

In 1889, a syndicate of English capitalists, attracted by the rich business prospects in Minneapolis, came upon the scene, and formulated a scheme by which they acquired a controlling interest in the principal flour-milling industries of Minneapolis, and the rights to the water power at the Falls. The whole of the Pillsbury undertakings as well as of those of their great rivals, the Washburns, were taken under the wing of this powerful combination, and were subsequently worked under the title of the Pillsbury-Washburn Flour Mills Company. The management of the consolidated concern was vested in Mr. Pillsbury, and from that time to the present the business has been carried on with continued success. Mr. Pillsbury, who was a man of robust build and buoyant health, and capable of great exertion, was seized with illness at the end of 1899, and died suddenly, universally regretted. His sons continue in the firm, in which they have large interests. The firm of Charles A. Pillsbury and Co. was also kept on, apart from the operations of the syndicate, but not as a flour concern. They retained the management of the Union and Empire Elevators, and were largely interested in pine lands. The Pillsbury-Washburn Corporation forms a wonderful monument to the business genius of Charles A. Pillsbury.

OLD AND NEW METHODS.

When Mr. Pillsbury took up flour-milling it was one of the simplest industries known. The wheat was ground between two millstones, as in ancient times, and after that was strained or "bolted." Then, in 1870, as we have seen, the "middlings purifiers" were introduced, consisting of a sieve laid horizontally, over which the ground product was passed. A blast of air blowing from under the sieve carried off the chaff and bran in a tube, and the heavier flour continued on its way undisturbed.

At the Pillsbury-Washburn mills the wheat is conveyed from the elevator direct into the cleaners in the mills, where it is first washed in a turmoil of water, then rapidly dried by a blast of hot air, then driven down a spout to the grinding machines, passing through eight separate cleaning processes in all. Thence it goes to the purifiers, already referred to, where the flour from the first grinding is separated from the rest, and shot down for a finer grinding, and so on until no less than sixty-one separate and distinct processes have been gone through.

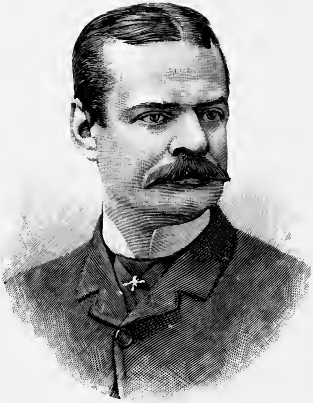
STARTLING FIGURES.

America yielded a crop of 600,000,000 bushels of wheat in 1899; 400,000,000 bushels of which were retained for home use; leaving 200,000,000 bushels for exportation. Towards this great total, Minnesota, which is at the head of the wheat States, produced upwards of 78,000,000 bushels. Great Britain is America's principal customer for flour, purchasing more than 10,000,000 barrels a year, which is considerably more than one-half the entire exportation, last year's exportation of wheat in the flour form being 18,000,000 barrels. It is computed that during the fiscal year ending on the 30th of June 1899, Great Britain paid to America not less than £20,000,000 for flour, out of America's total receipts for flour and wheat exported to foreign countries of £35,000,000. When it is stated that the Pillsbury-Washburn mills have a flour-producing capacity of 25,000 barrels a day it may be realised how large a proportion of Great Britain's flour importation from the States could be supplied from this one source alone—not less than two-thirds. And, were we at liberty to quote the actual Pillsbury-Washburn figures, it would be seen that they count up a long way towards that amount.

KINGS OF FINANCE AND FORTUNE

THE ASTORS AND VANDERBILTS

To write about American millionaires and not refer to the Astors, Vanderbilts, Goulds, and other money kings of the country, who by operations apart from trade and industry have achieved great fortunes, would be like writing about the Civil War and leaving out the name of General Grant. Compared with the careers of other American men of wealth, the stories of the founding of the fortunes of these older moneyed families seem quite ancient history, and yet it is only about fifty years since the originator of the Astor wealth passed away, while not a quarter of a century has gone by since the creator of the Vanderbilt fortune died. These two names, however, are still names of might and potency, representing, as it were, the corner-stones of that great temple of riches which to-day forms such an object of worship in America. The present members of these two opulent families enjoy the almost unique distinction amongst American families of having been born to great fortunes. As a rule, the American millionaire is a man who has had to fight hard for his wealth—a man who has risen from very humble beginnings. But the Astors and the Vanderbilts now living are almost men of lineage and ancestry, for they can trace their pedigrees back for four generations before coming upon the dead level of poverty from which their great-grandfather sprang. In their way they are aristocrats, in spite of their still being engaged in the money-making business, but their interests in the substantial wealth and wealth-creating undertakings of the country are so vast, and count for so much in the national life, that a brief outline of



HON. WILLIAM WALDORF ASTOR
(of Cliveden)

Author of "Valentino"
Formerly U.S. Minister to Italy

the careers of these famous money-amassing families, and of the Goulds and other Wall Street magnates of a later day, will not be out of place in our portrait-gallery of America's richest men.

It was John Jacob Astor, who was born in Heidelberg, Germany, in 1763, who was the fortune-making genius of the Astor family. He was the son of a butcher, and helped his father in the business until, in early manhood, he conceived the idea of trying to better his lot in America. On the way over he made the acquaintance of an old fur trader, who talked freely with the young man concerning the exciting life and large profits of men who went out to the North West and traded with the Indians for skins. So deep an impression was made upon John Jacob Astor by these stories that he made up his mind long before he landed at New York that he would try his luck in the fur business, and, accordingly, he made his way straight across the continent, undergoing innumerable hardships during the slow, tedious, and dangerous journey, and when at last he reached the Western solitudes be began, without loss of time, to turn to account the expert information he had received from his old fellow-voyager while crossing the Atlantic.

NO CAPITAL—PLENTY OF COURAGE.

He had next to no capital when he reached his destination, but he had courage and audacity, which did nearly as well in those days and in that far-off region. He soon discovered that the old trader had not sent him on a wild-goose chase. There was plenty of profitable business to be done by a shrewd man like himself, with a keen eye for a bargain, and a convincing manner that told upon the simple barbarians, who lived their primitive lives out there, and hunted the wild animals that were then so numerous around them. Mr. Astor became as one of themselves, spending months at a time with them, getting to know something of their language, and a great deal about their weaknesses, and in this way putting himself on the most favourable footing for doing business with them. Often enough, Mr. Astor was able to buy valuable sable and musk furs from the tribesmen for some trifling return in the shape of glass beads, red paint, or—most seductive of all—whisky. In one way and another he managed to get hold of considerable quantities of furs very, very cheap, and sent them to Europe and China, selling them for such prices as then ruled in the chief cities—prices which would have seemed fabulous to the Indians. Mr. Astor organised a great business, establishing trading points over the North-Western territory as far as the Pacific coast.

This was the adventurous trade which yielded John Jacob Astor his first hundred dollars. After that his gains soon mounted up into the thousands, for he was thrifty and frugal, and the desire to become rich had taken possession of him. As soon as he found himself with a few thousand dollars clear, he began to consider how he could most profitably invest the money, and, having the true instincts of the money-maker, he decided that the best thing he could do with his savings would be to invest them in real estate in New York, which he could see would one day become a great, rich, and populous commercial city. He was convinced that real estate judiciously bought in an improving city of that kind would inevitably increase greatly in value as time went on. This was the money-making path he marked out for himself, and he stuck to it with remarkable tenacity. So with every fresh haul of dollars realised from his trading with the Indians he bought additional property in New York, and, in order to keep in close touch with his real estate holdings, and with a further eye to his fur trade interests, he opened a shop in the Empire City. This done, he took to wife a clever young woman of business habits, named Sarah Todd, and the two started housekeeping in a room over the shop. Here they lived in the most economic style for fifteen years, their whole hearts devoted to their business. They spent most of their evenings in the shop, sorting pelts. But when the time came that they had accumulated a fortune of £50,000 they began to think that they might possibly afford to live in a better style, so they took a small house apart from the shop, and became persons of some little note. Mr. Astor, however, kept on with his fur-trading, and kept on with his real estate investments. More than that, by a lucky speculation in bonds he doubled his fortune at a stroke, and, no matter how much he made, all his money was put into real property. He was in the enviable position of being able to hold on through times of panic and depression, and when values ran low he purchased all he could. So he continued his money-making tactics for the rest of his life, and when he died in 1848, at the age of eighty-five, he left behind him to his son, Wm. B. Astor, an estate valued at £4,000,000, which was regarded as an immense fortune in those days. He bequeathed a legacy of £80,000 to the city of New York to found a library.

A VALUABLE LEGACY.

But the most important legacy John Jacob Astor left to those of his race who came after him was the solemn advice to always adhere to the policy which he himself had laid down and religiously practised, which was to hold fast to the real estate, never to sell any of it, but to improve it and buy more. And that is the policy which the Astors have ever since consistently pursued. Wm. B. Astor, the son, made it the leading principle of his life. No one was ever able to inveigle him into trade, speculation, or enterprise of any kind whatsoever. The be-all and end-all of his life was "Propputy, propputy, propputy," and when he died in 1875, it was found that in the twenty-seven years which had elapsed since the death of the original John Jacob Astor the Astor fortune had been doubled.

Another Wm. B. Astor (the grandson of John Jacob, and eldest son of the first Wm. B.) succeeded, and again the policy was "hold fast." By this time land values were improving at a greater rate than ever, and when this head of the Astor family passed away, in 1890, the fortune had once more been doubled, and this in the short space of fifteen years. The bulk of the Astor wealth now devolved upon his two sons, John

Jacob and William, who, between them, it was estimated, owned over 3000 houses in New York, with the land thereunto attached. These two heirs of the Astors died in 1893, when the present William Waldorf Astor inherited the larger share of the Astor accumulated fortune, and John Jacob Astor fell in for the remaining portion. Mr. W. W. Astor is now about fifty years of age, and resides in England. He is proprietor of the *Pall Mall Gazette* and other literary properties, and has himself won distinction for his literary and artistic talents. He has, at all events, been much more than a mere man of money. He was United States Minister to Italy for several years, and while living in Rome wrote a clever novel of Italian history, entitled "Valentino." Other works from his pen have since been issued, and all of them are marked by a highly cultured and refined imagination. His cousin, John Jacob Astor the third, resides mostly in New York, and is a figure of considerable prominence in the social life of America. During the late war with Spain, he equipped a battery of horse artillery at his own cost, and served with them as leader in Cuba.

This, in brief, embraces the history of the Astor family since the time of the fur-trading days of the original John Jacob Astor to the present year of grace. No member of the family has been in trade since the fur shop was closed. Still they have all been men of business, more or less, and in the control and management of their extensive properties have displayed great capacity. Some of their properties—such as the Waldorf-Astoria Hotel, which is probably the finest house of the kind in the world—a marble palace of regal splendour—are magnificent contributions to the architectural importance of the best parts of New York. It is estimated that William Waldorf Astor is worth over £20,000,000, and that John Jacob Astor is not very much behind him in point of wealth.

THE VANDERBILTS.

Turning to the Vanderbilts, we find ourselves in a more active atmosphere, the family wealth having been acquired

W. K. VANDERBILT

by a long series of financial speculations connected with the general development of the country, its railways and other enterprises—although, of course, they have been, and are, owners of considerable real estate. Three generations of Vanderbilts have left their mark upon the nation's progress.

The first of the family to make a name and a fortune was Cornelius Vanderbilt, commonly known as the Commodore. He was born on Staten Island in 1794, and as a boy had a rather rough time of it. From six years of age to sixteen he worked hard, doing any kind of odd job that presented itself—labouring on farms, performing porter's duties, or helping in building operations—in fact, doing anything that a strong and healthy boy could get to do in a new country. He was of a thrifty disposition, however, and when he got his first hundred dollars together he utilised the sum in buying a small boat, with which he started business as a carrier of vegetables between New York and Staten Island, occasionally conveying passengers as well. He prospered beyond his expectation, though not beyond his merit, for he was always on the look-out for paying cargoes, and was diligent and capable. One of his strokes of luck at this time was the obtaining of the contract for carrying provisions to the six forts around New York. He was doing so well that he ventured upon the important step ot marrying. This was when he was twenty years of age, and the object of his choice was his cousin, Sophia Johnson, who proved to be not only an excellent wife but a clever woman of business.

Not long after his marriage he was able to build a small schooner for his growing carrying traffic, and became known among his intimates as Captain Vanderbilt, for titles were more the outcome of popular approval than of official recognition in those days. Then he took a little hotel in New Jersey, leaving his wife to manage it while he was busy with his schooner. In three years after his marriage he was worth £2000. Then came the great change involved in the introduction of steam as a means of ship-propulsion. At first young Vanderbilt took sides with those who sneered at the steam-boat as a toy, but it did not take him long to revise his judgment. He saw that a revolution in water-transport was impending, and resolved to be one of the leaders. So he sold his interest in the sailing vessels of which he had had the charge, and began to look around for a steamer to command. But here he was met with difficulties. A monopoly of the use of the new motive power in the State of New York had been granted to Fulton and Livingstone, and their steamers were plying daily between New York and Philadelphia, and other near ports. In opposition to these ships, and in spite of their legislative protection, a wealthy man named Thomas Gibbons started a line of steamers of his own, and there was for a time much litigation and fierce contention between the monopolists and Gibbons. Cornelius Vanderbilt's sympathies were with Gibbons, and when the latter was in want of a commander for his new steamer, *The Mouse of the Mountains*, he offered the post to Cornelius, who immediately accepted it, at a salary of £200 a year. For the next twelve years Cornelius Vanderbilt was actively employed in these steam shipping ventures, which, under his direction, ultimately paid the owner of the line £8000 a year, Vanderbilt's salary being advanced to £400 a year.

NEW IDEAS.

In those strenuous years Cornelius Vanderbilt had learned much about the possibilities of the steamship as a money-maker, and had made up his mind to go into the business for himself. So in 1829, in spite of the remonstrances and increased offers of Gibbons, and the entreaties of his wife, he quitted the service of his old master, and removed with his family to New York, where he began to build boats of an improved pattern, and ran them in opposition to the old-established lines. For the first five years after leaving Gibbons he made £6000 a year. Soon after that he doubled his income; and so he went on enlarging his ventures year after year, and became a rich man. In a published list of the more active men of that day he was described as "Cornelius Vanderbilt, worth £150,000, of an old Dutch root," of whom it was added, "He has evinced more go-aheaditiveness than any other single Dutchman ever possessed. It takes our American hot suns to clear off the fogs and the vapours of the Zuyder Zee, and wake up the phlegm of a descendant of old Holland."

A START IN WALL STREET.

In 1846, Captain Vanderbilt began to speculate in other things than steamships, venturing upon the turbulent waters of Wall Street, where by numerous brilliant manœuvres—notably in capturing certain railway interests, by which he secured practical control of large undertakings—he added largely to his wealth. His ships were steaming in and out in all directions. He ran boats to Albany, and established lines to Providence, Boston, Newport, and many other places. His greatest steam-shipping venture, however, was the formation of the Nicaragua line, which shortened the route to the Pacific by 600 miles. Out of this speculation he made upwards of £200,000 a year. At one time he had a fleet of sixty-six steamers on his various lines, and the honorary title of Commodore was conferred upon him by his friends and accepted and borne by him for the rest of his life. He was nine years altogether in the Nicaragua shipping trade, out of which he is said to have made £2,000,000. It was not all plain-sailing for him for all that. The Nicaragua Transit Company, to whom he sold a controlling share of the Nicaragua fleet, at one time refused to pay him according to bargain, and as suing them would involve great cost and delay, and something like an international complication, he resolved upon adopting another mode of bringing them to their senses. He accordingly wrote the following laconic epistle: "Gentlemen,—You have undertaken to cheat me. I won't sue you, for the law is too slow. I will ruin you.—Yours truly, Cornelius Vanderbilt." He kept his word; he put on a new fleet of steamers, and in less than two years the Nicaragua Transit Company were bankrupt.

GOES "SOLID" FOR RAILWAY "SPECS."

When the Commodore went into railway speculation he sold all his ships for £600,000 in cash, and entered upon the most brilliant period of his career. Although nearly seventy years of age when he made his first great railway *coup*, his brain was as active as ever, and during the next fifteen years he succeeded in doubling his wealth four times over. The Harlem Railroad, the Hudson River road, and the New York Central came successively under his sway, and under his energetic direction they prospered amazingly. In 1869 he declared a tremendous dividend of new stock, by which 80 per cent. was added to the value of the Hudson River stock, and 170 per cent. to the value of the New York Central shares. He was able to say before his death, "I have made a million dollars every year of my life, and the best of it is that it has been worth three times that to the people of the United States!"

Commodore Vanderbilt had three sons—William Henry, Cornelius Jeremiah, and George, but beyond giving them a fair education he did not evince any particular regard for them. In truth, towards William Henry and Cornelius he showed a positive dislike, looking on them both as deficient in intelligence and utterly incapable of any business career. For the youngest son he displayed a warmer feeling, and sent him to West Point, and entered him for a military life; but both Cornelius Jeremiah and George died without accomplishing anything to add to the Vanderbilt fame, the latter's health giving way after exposure in the Civil War, and the former having all along been physically weak. It remained for William Henry alone to keep up the family name, but the father had little hope of Billy, as he called him, treating him as a stupid, shiftless fellow, worthy of no attention.

THE "COMMODORE'S" ORDER TO "W. H. V."

At eighteen years of age, William Henry Vanderbilt was appointed to a clerkship in a Wall Street bank, and, two years later, incurred the displeasure of his father by marrying the daughter of a Brooklyn clergyman. William Henry was receiving a salary of nineteen dollars a week, and that was all; his father making him no allowance, and refusing to do anything for him after his marriage; so the young clerk and his wife struggled on for many years, living most of the time in cheap boarding-houses. A day came, however, when William Henry's health gave way, and the doctor informed the Commodore that his son would have to be taken out of the bank if his life was to be saved. The Commodore looked sternly upon his son when next they met, and said, "Well, Billy, what next?" "I don't know," was the answer. "If you leave the bank, what can you do?" the father inquired next. "Well, I suppose I can manage to support the two of us." "The two of you!" exclaimed the Commodore angrily. "I'll tell you what the two of you will have to do; you'll have to go and live on a farm; that's about all you are fit for."

W. H. V. SCORES.

From this decision there was, of course, no appeal. The Commodore bought a farm of seventy acres of unmade land on Staten Island, and put the young couple on it, and here for a number of years they continued to live and strive. Thus the millionaire and his son lived their separate existences, the father steadily piling up his wealth, and the son working on at his farm, hardly recognised. The years went slowly by until William Henry Vanderbilt, the farmer, became a man of forty-three, with a young family growing up around him, and the Commodore, whenever he gave the son a thought, regarded him as a farmer, and nothing else. But one day, about this time, the son treated the father to a slight surprise. The stupid boy, now forty-three years of age, managed to get the better of his father in a certain financial transaction to the tune of half a million dollars, and this had the effect of changing the Commodore's attitude towards his son from one of suspicion and distrust to one of confidence and belief, and within three months of that time William Henry Vanderbilt was in full control of his father's financial affairs, and displayed a capacity for handling and making money that showed him after all to be the true son of his father. When the Commodore died, in 1877, at the age of eighty-two, he left to William Henry, then fifty-six years of age, a fortune of £15,000,000; and this immense fortune William Henry succeeded in more than doubling in the eight years of life that were still left to him, dying in the magnificent mansion that he had erected for himself in Fifth Avenue, leaving to his children a fortune of £40,000,000, of which his eldest son, Cornelius, received nearly £12,000,000; his second son, William Kissam Vanderbilt, £11,400,000, and to each of his six remaining children he gave £2,500,000; while his widow was provided with the yearly income of £40,000 for life, and the use of the family mansion.

THE SORROWS OF A MILLIONAIRE.

Cornelius Vanderbilt, William Henry's eldest son, inherited, in addition to his large fortune, a considerable share of the Vanderbilt faculty of money-making. At twenty-one he was placed in the Treasurer's Office of the New York Central, which had long previously been under the control of the Vanderbilts, and he had been in that department thirteen years when his grandfather, the Commodore, died. After that he was rapidly advanced to more responsible positions, and, on the death of his father, in 1885, he became the head of the family, and in addition to holding the chairmanship of the Board of Control of the New York Central and the Michigan Central Railways, he held important posts in connection with other lines run by the Vanderbilts. His father, William Henry Vanderbilt, had not been too happy with his immense wealth in his later years, having pathetically remarked on one occasion: "The care of two hundred million dollars is too great a load for any brain or back to bear; it is enough to kill a man. There is no pleasure to be got out of it as an off-set—no good of any kind. I have no real gratification or enjoyment of any sort more than my neighbour who is worth only half a million. So when I lay down this heavy responsibility I want my sons to divide it and share the worry which it will cost to keep it." But the fortune which each of the sons inherited, and which each of them augmented year by year, by the force of their immense holdings of stock and their clever financial management, was hardly less of a burden than that which their father had had to bear, for all of them proved themselves men of business capacity, and probably did not find the handling of their millions a task beyond their respective capacities. There is always a ready way out of the burdensomeness of money, but few choose to take it. As to Cornelius Vanderbilt, he continued to manage his affairs with great ability down to the time of his death, in 1899, by which time he had increased his fortune to £20,000,000.

A CHIP OF THE OLD BLOCK.

There was much of the sternness of spirit of the Commodore in his namesake the third Cornelius, who had been trained in strict business habits, and was a great disciplinarian. He looked for the same obedience and submission in his own children that his grandfather had looked for in his, and strongly resented being crossed. To an extent he was proud and unbending. This was shown quite early in his career. At the time that he was employed in the Treasurer's Office one of the managers happened to mention to the Commodore that his grandson was making a very clever clerk for them. "Why," said the Commodore, "this is the first I have heard of one of Bill's boys being with you. Which one is it?" "Cornelius," was the answer, "and a fine, manly lad he is, too." "Well," returned the Commodore, after a moment's thought, "I wish you would ask him to come and see me this afternoon before he goes home." When the young man arrived in the Commodore's office, the old gentleman expressed surprise at his having left school, and asked why he had not applied to his grandfather if he wanted a job? Young Cornelius looked serious. "I had made up my mind," he said quietly, "that I would not ask you for anything." This reply pleased the Commodore so much that a few days later he added a codicil to his will, by which a million dollars was left to the grandson who had been independent enough to look out for himself.

A HARD SHELL.

Another instance of the third Cornelius's stern view of life and its obligations was manifested in his dealing with his own son, Cornelius the fourth, his eldest child. The latter married Miss Grace Wilson, a young lady of good family, but eleven years her husband's senior, some two years before the third Cornelius's death. The father made the most vigorous protest against the union, but all to no purpose, and after the marriage father and son were never again on the old terms of affection, although many attempts were made to bring about a reconciliation; and when the will of the father came to be read it was found that for his act of disobedience the son was punished by being displaced from the position of chief heir and head of the family, which would otherwise have been his, and the second son, Alfred Gwynne Vanderbilt, was put in his place, inheriting a fortune of £10,000,000, while the elder brother had only £300,000 left to him. All the other children received much larger shares. Alfred G. Vanderbilt, however, prompted by brotherly affection, and for the sake of family harmony, gave Cornelius £1,200,000 out of his own fortune, and thus the punitive act of the father was considerably ameliorated.

William Henry Vanderbilt's second son, William Kissam Vanderbilt, is now the head of the Vanderbilt family, and, in spite of his splendid gifts to his daughter, Consuelo, the Duchess of Marlborough, in the way of dowry, and his liberal style of living, has managed his business affairs sufficiently well to still leave him with a fortune of £20,000,000. The younger son of William Henry Vanderbilt, George, who married about a couple of years ago, has, in addition to a magnificent mansion in New York, built himself "a lordly pleasure house" at Biltmore, in the mountain region of North Carolina, at a cost of many millions. The estate comprises about 100,000 acres, and forms one of the finest and most extensive private properties in the country. It is possible to drive thirty-five miles in a straight line from the house without getting away from the estate.

The Vanderbilts, with their numerous railway and other undertakings, representing colossal operations, hold a most commanding position, and, speaking generally, it may be said for them that they never forget their duties to the public while engaged in the great work of guarding and increasing their personal fortunes. The New York Central system, which the Vanderbilts have for so long controlled successfully, is one of the best built and best equipped lines in the States. This great railway, which, in 1831, was only seventeen miles in extent, and carried passengers at the maximum speed of fifteen miles an hour, now extends, with its various connections, over an aggregate length of track of 10,430 miles; its equipment consists of 150,400 freight cars, 3600 passenger coaches, baggage, mail, and express cars, and 3580 locomotives; and in 1899 it carried more than 52,000,000 passengers, and hauled over 103,000,000 tons of freight.

THE GOULDS, HON. RUSSELL SAGE, AND "SILENT SMITH"

THE main facts of the history of Jay Gould, the founder of the most rapidly won fortune of modern times, are well known, but there are some incidents of his career which are less familiar, yet are still of importance to the comprehension of the man's character. Jay Gould revealed a subtle compound of audacity and unscrupulousness in his methods of money-making, while in the privacy of his home life he was beyond reproach — a faithful husband and a devoted father. He was the cleverest and most daring of the great Wall Street speculators, holding nothing sacred but his own selfish interests, and dealing out disaster and wreckage to men and enterprises that stood in the way of his schemes with a coolness that almost seemed to indicate the absence of ordinary human feeling from his composition; and yet in the seclusion of his own home, which he treasured greatly, he was a man of the gentlest and most affectionate disposition. His life, indeed, was full of dramatic contrasts. No buccaneer that ever swept the seas accepted more risks than he; no warlike general ever faced odds so willingly or so courageously. He was often heroic in the achievement of his own sordid ends, as other men have been in the doing of noble deeds for the good of others.

JAY GOULD'S BOYHOOD.

Born on a farm in New York State in 1836, his boyhood and early manhood were passed amidst hardship and struggle. It was with difficulty that he obtained any schooling, having much of the drudgery of the farm to perform, but by attending a school eleven miles away and submitting to do clerk work for a local blacksmith, he managed to pull through as far as the rudiments of an education were concerned, and in 1853, at the age of seventeen, he went to New York, carrying with him a mouse-trap, which he expected would make his fortune. But the mouse-trap was stolen, and the future financier had to adopt other means of making a living. For a time, it is said, he was a street pedlar; but little by little he worked his way up, and in course of time, by the aid of a small capital that he had contrived to scrape together, he ventured boldly into speculation, invested shrewdly in shares, and ultimately gained the command of sufficient money to enable him to fight with the giants of Wall Street.

"BLACK FRIDAY."

Once upon the crest of the financial wave, he never took in sail, but sped fearlessly on until his skilful seamanship brought him into port after port of the great coastline of the land of success. For years he reigned supreme. No one could pass him. Over and over again he forced disastrous panic upon the money-market in order to profit by it, and the famous "Black Friday," when he and his partner, the notorious James Fisk, jun., effected that "corner" in gold which enriched them and made thousands of others bankrupt, will always be remembered as one of the most astounding days in the history of Wall Street. Still, he pursued his adventurous way unruffled by the curses of his victims, or threats of assassination, and when his day's labour was done he drove off quietly to his mansion, and in the placid atmosphere of the domestic virtues obtained the rest and consolation necessary to prepare him for the next day's money-making.

His association as partner with James Fisk, jun., was another of the strange contrasts of his life. There could be nothing in common between the two men except audacity and unscrupulousness in playing the financial game, for Fisk was not of the "family circle" order of being like Gould, but a loud, vulgar, coarse-living libertine, whose career was finally put an end to by his being shot by a man named Stokes in a dispute about a woman. Gould survived Fisk for many years, but with all his wealth he was not a happy man; he died at the age of fifty-eight, leaving a fortune of £15,000,000, and, speaking of the cause of his death, his doctor is reported to have said that in his opinion the millionaire's system gave way "under the great strain resulting from the consciousness of his great wealth," adding that "he was always weighed down with the anxiety and excitement of protecting his properties."

FAMILY MATTERS.

During the last five years of Jay Gould's life his eldest son, George J. Gould, was actively employed in helping his father in the management of his great financial undertakings, for which service an extra £1,000,000 was left him in addition to his equal share in the general residuary estate. There were six children, and each inherited over £2,500,000. The sons are all connected more or less with important financial enterprises, and some of them—notably George—have shown marked business ability. They have been much more lavish in their style of living than their father, keeping their yachts, and indulging in most of the fashionable pleasures. The eldest daughter, Helen Gould, is renowned for her charities; the youngest daughter, Anna, was married to Count de Castellane, a French nobleman, whose exploits in ostentatious money-spending with his wife's dowry have attracted much attention of late, partly because of the embarrassment that has followed his indulgence, and partly because of a volatile political eccentricity which, without furthering his personal ambition, has served to amuse his countrymen considerably.

HON. RUSSELL SAGE.

To mention Wall Street and not allude to Russell Sage, the now aged financier, who has built up a fortune of over £5,000,000 by a careful and shrewd method of action rather than by daring strokes, would be to pass over one of its best known features. Mr. Sage is credited with miserly habits, and jokes are made when he appears in a new suit of clothes. He was one of the men who was in with Jay Gould when the queer story concerning the Wabash stock and the Grant testimonial was in progress, and he has been more or less in touch with all the Wall Street leaders of the last forty years. Like the man who never prophesies until he is sure, Mr. Sage never speculates unless he knows he is safe. He doesn't undertake big risks for big profits, but goes on steadily accumulating his millions, without any other aim in life, and acknowledges to being happy. It is his boast that he has no liking for society, friends, books, or amusements. His one desire has been to become rich, and having succeeded in that his highest aspirations may be said to have been realised. Mr. Sage was once asked for some advice on the way to become rich, and his answer was such as one would hardly have expected from him, because he takes it from Shakespeare, and this bespeaks some literary taste, which Mr. Sage disavows. He recommends the young fortune-seeker to commit to memory, as he says he did, the advice of Polonius to Laertes, and try to live up to it, and if he does that, the Wall Street philosopher proclaims he will as certainly become rich as "the night will follow the day." Mr. Sage, who was originally, like so many other of the new rich of America, a poor boy on a farm, looks upon his life as a complete success. "Everything I have tried for I have got," he says; "all my ideals I have realised; I am perfectly satisfied." How different is this from the plainings of William Henry Vanderbilt and Jay Gould, who while holding tightly to their great fortunes, groaned under the burden of them.

"THE SILENT MAN OF WALL STREET."

Since the death of the rich man known as "Chicago Smith," in London, a couple of years ago, a nephew of that eccentric gentleman's has been making quiet but successful headway among the money-makers of Wall Street. Not long ago it was stated that this nephew was the seventh richest man in the United States. "Smith? Smith?" people asked, when this statement was made, "we have heard that name before, but which particular member of the great family does it refer to?" And they were not much enlightened when they were told that James Henry Smith, nephew of "Chicago Smith," was meant. He was not even well known in Wall Street itself. Indeed, his personality was of such a mysterious order that he had for a long time been spoken of simply as "The Silent Man of Wall Street," without its being known whether he was really a Smith, a Brown, or a Jones. That he operated pretty largely was evident, and that he was generally successful in his transactions was equally evident, but he moved around so quietly, and had so little to say to anybody, and appeared so very lonely and reserved, that the title of "The Silent Man of Wall Street" seemed to exactly fit him. After his uncle's death he came to be talked about, however, for a man cannot come into many millions in the way that he did without attracting some notice. The millions will insure that. But to the few who had cognisance of James Henry Smith's previous career, it was known that for several years back he had been engaged in Wall Street operations, and with very good results. He was rich — a millionaire — even before his uncle's bequest put him in the front rank of America's wealthy men. His personality was thus hit off by a man who knows him: "Mr. Smith is a bachelor, has few intimate friends, is not given to making a display either of himself or of his money, and in Wall Street is noted for the characteristics which have given him his nickname." In James Henry Smith's case silence has indeed been golden.

BURSILL & MAYMAN
LONDON

SIR HIRAM S. MAXIM

THE MAN BEHIND THE GUN

From a Portrait by BASSANO, *London*

THE MAXIM 37 MM. AUTOMATIC GUN

FIG. I.—Side Elevation of the Pom-Pom. The Pom-Pom is a fully automatic gun of one and a-half inch ($1\frac{1}{2}$ inch) calibre.

FIG. II.—A Longitudinal Central Section of the same Gun, showing the mechanism.

FIGS. III., IV., V., and VI. also show the working of the mechanism.

GENERAL DESCRIPTION.

The gun consists of two parts, viz., the recoiling and the non-recoiling.

The recoiling portion is the barrel (B), the recoil plates (R), the lock with crank (C), and the crank handle (D).

The barrel is provided with trunnions, to which the recoil plates (R) are attached.

At the rear end of the recoil plates is the crank (C) with connecting rod, to which the mechanism is secured by means of a bayonet lock.

The shaft of the crank passes through the outside plates (E); to this shaft are fixed the volute side spring (K) enclosed in a gun-metal box on the left-hand side and on the right-hand side the roller handle (D), which, when the gun is closed, rests against the roller (L) attached to the outside plate.

The non-recoiling part of the gun consists of the casing or frame (E), the water jacket (S) and the rear block (H). The casing is secured to the water jacket and rear block by means of dovetails.

A hydraulic buffer is fitted to the outer part of the rear block for controlling the recoil.

On the right-hand side of the rear block is the pistol grip holding the trigger (T), and also a socket for taking the rear sight (F).

On the left-hand side of the gun case is, as already mentioned, a strong volute spring (K), which is connected with the crank shaft. (*See* Fig. II.)

The water jacket is of gun-metal and surrounds the barrel; it is fitted with three openings, one for receiving the water, one for drawing off the water, and the third for letting out the steam; the first two openings are closed by screw plugs, the third is always open and is connected to a system of tubes (N) (one sliding and one stationary) which permits the steam to escape, but not the water, whether the gun is elevated or depressed, or in a horizontal position. Both ends of the water jacket are fitted with stuffing boxes and glands; these guide the barrel and prevent the water escaping. The barrel is surrounded by a strong spiral spring, which rests between the barrel nut and a seat in the middle of the water jacket. (*See* Fig. II.)

FEEDING THE GUN WITH CARTRIDGES.

The gun is supplied with cartridges from a belt which passes through a feed block on the top of the gun from right to left.

In the feed block are two movable pawls and two stationary ones. The movable pawls are fixed to a slide in the upper part of the feed block. This slide moves from left to right by means of levers acted upon by the barrel. When the barrel recoils, the pawls are moved from left to right. The pawls are pressed down by a spring and engage behind the next cartridge in the belt, and thus the cartridges move on automatically; when the barrel returns, the pawls place the cartridge still in the belt immediately over the chamber. The action of the mechanism is fully described in the Handbook prepared by the Maxim Nordenfelt Guns and Ammunition Co., Limited, London.

Fig. I.

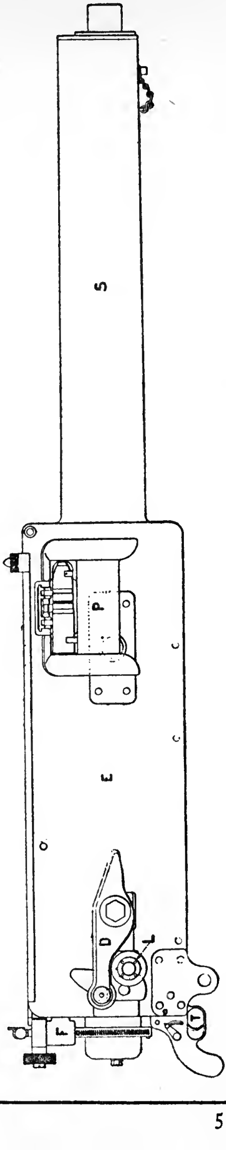
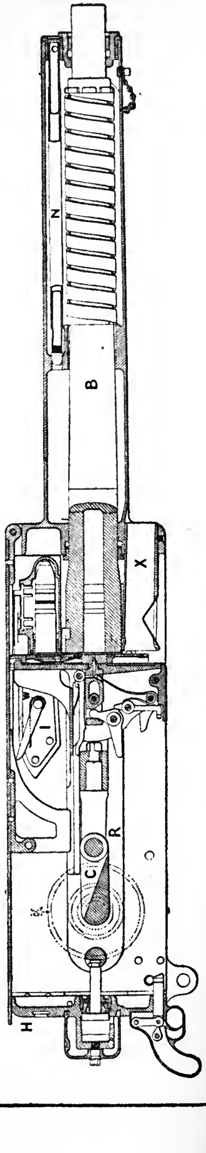
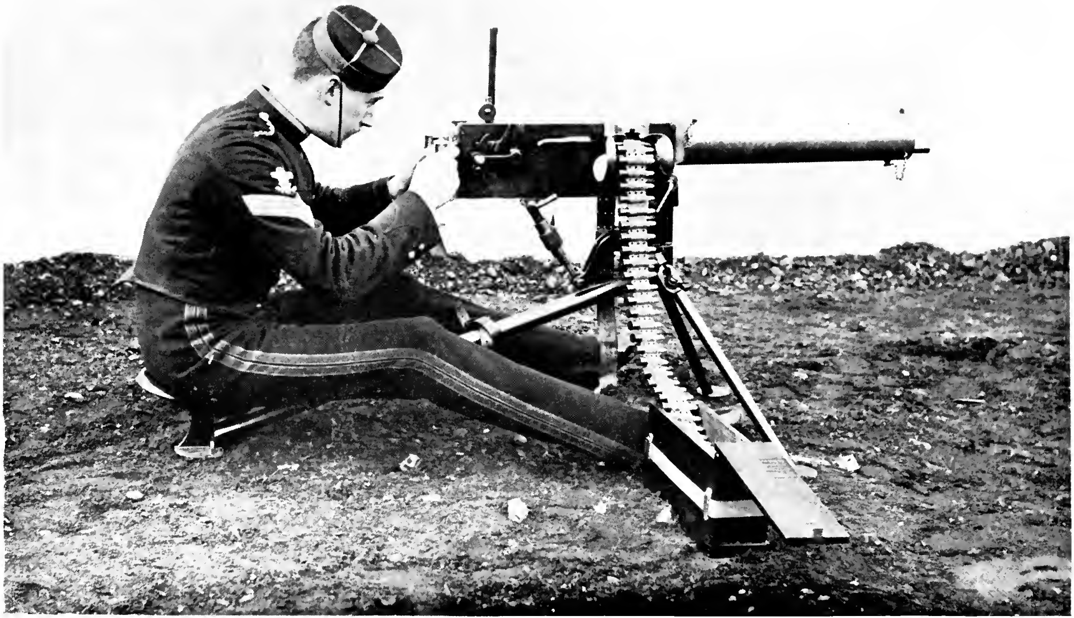


Fig. II.





British Soldier firing Rifle Calibre Maxim Gun

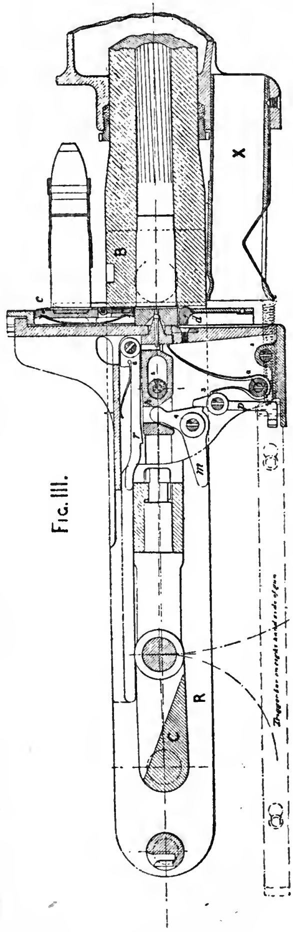

B
X
c
d
r
m
p
R
C
Trigger bar on right hand side of gun

FIG. III.

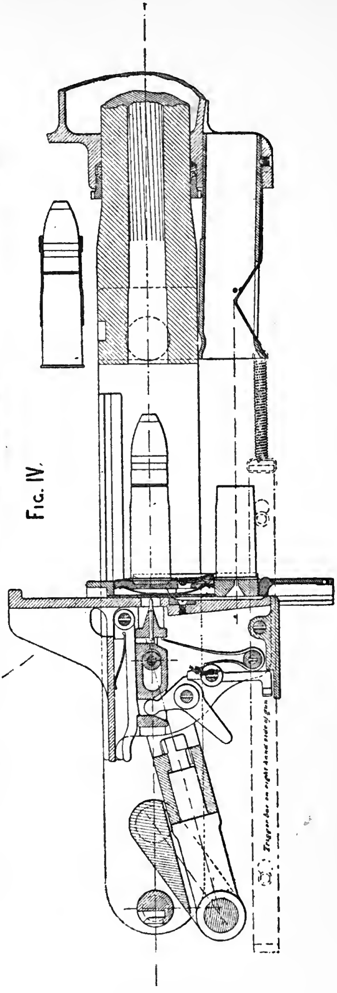

Trigger bar on right hand side of gun

FIG. IV.

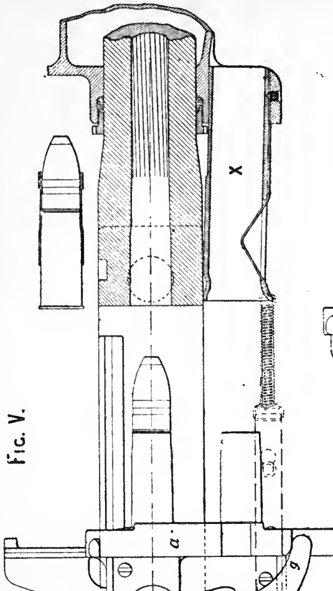


FIG. V.

X
a
e
g
Trigger bar on right hand side of gun

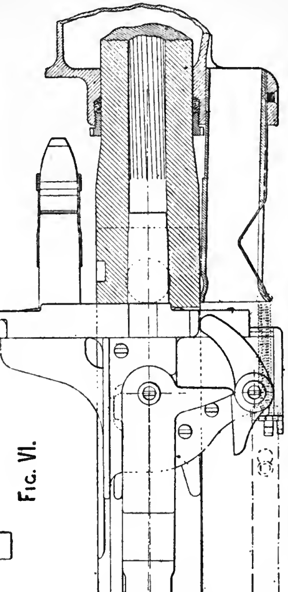
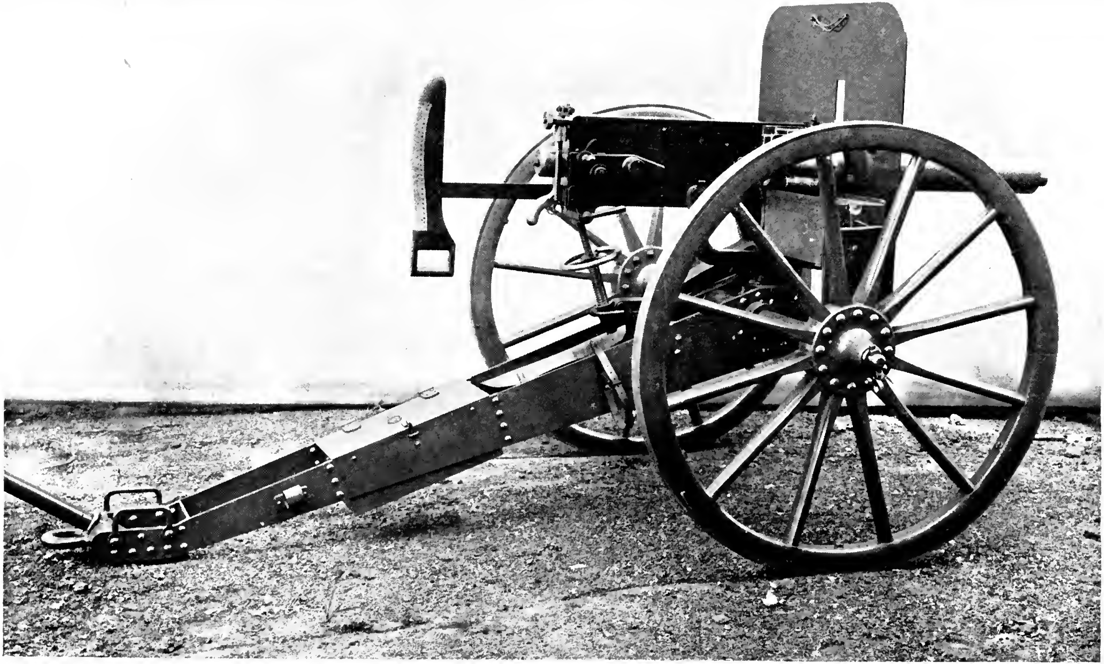


FIG. VI.

Trigger bar on right hand side of gun



THE "POM POM"

THE ARTILLERY SURPRISE OF THE PRESENT SOUTH AFRICAN WAR

(37 $^{m}/_{m}$ Maxim Automatic Gun on Field Carriage—Firing Position)

THE LIBRARY OF THE UNIVERSITY OF CALIFORNIA LOS ANGELES

3 1158 00533 5558

JL

THE LIBRARY OF THE UNIVERSITY OF CALIFORNIA LOS ANGELES