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A

REPORT

ON THE

AGRICULTURAL AND OTHER RESOURCES

OF THE

STATE OF NEW YORK.

BY

THEODORE C. PETERS,
STATE ASSESSOR.

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REPORT.

NEW YORK STATE AGRICULTURAL SOCIETY,
EXECUTIVE MEETING, *Sept.* 20, 1864.

The following resolution was adopted:

Resolved, That the Hon. T. C. Peters be requested to prepare his "Report on the Agricultural and other Resources of the State," as State Assessor, for publication in the Transactions of 1863.

[A copy.] B. P. JOHNSON, *Secretary.*

LETTER TO COL. B. P. JOHNSON.

Col. B. P. JOHNSON, *Secretary*, &c.:

My Dear Sir—I hand you herewith the report called for by the foregoing resolution.

You will please tender to the committee my sincere thanks for the honor conferred, by thus placing my humble efforts in behalf of the great interests of the people of this State among the enduring monuments of its Society. I am, sir, your old friend, with great respect,

DARIEN, *September* 26, 1864. THEODORE C. PETERS.

PREFACE.

In complying with the request of the Executive Committee of the State Agricultural Society, to prepare the following report for publication in the Transactions for 1863, I have in some slight particulars changed the text from that submitted to the Legislature last winter.

I believe it of very great importance to be well examined by each farmer and mechanic in this State. Facts are herein embraced that cannot be too well understood by all tax payers.

It is because of their ignorance of these facts, and the conclusions drawn therefrom, that legislation is so crude and faulty.

I trust it may be the means of calling the attention of the people to the inauguration of a thorough system of statistics, for its only thereby that their best interests will be conserved in the equalization of values for purposes of State taxation.

I regret that I have not met with that cordial support, both by people and legislatures, in the prosecution of my labors, which the importance of the subject demands.

Strenuous efforts have been made by people and members of the Legislature, during the whole time I have been engaged, to repeal the law which authorized the appointment of the State Assessors, and failing in that, some have sought for temporary popularity by endeavoring to compel resignation, by withholding appropriation for annual services.

A few men have been found each year who appreciated the importance of the subject, and to their steady friendship and support I am indebted for the power to complete this report.

I hope it will demonstrate the vital importance of the subject, and that hereafter, whether in my hands or those of a more competent person, no obstacle will be thrown in the way of prosecuting the inquiries into the resources of this State, and the best means of their most thorough development.

DARIEN, *September* 26.

INTRODUCTION.

In preparing a report on the "Resources of the State," an attempt has been made to so divide the several counties into groups, as to show at a glance the prevailing topography and agriculture of the State, and from the condition of its agriculture the value of its lands and the wealth of its agricultural population, as their prosperity is an index to the prosperity of all other industrial pursuits.

The commercial advantages of each group are also shown, as by the internal commerce of the State the continued increase of capital is to be affected, and upon that increase depends much of the value of the real estate of cities and villages, and the accumulation of personal property.

In a general manner, also, the manufacturing facilities of each group are alluded to, so that the future prospect of a rapid accumulation of population and wealth or the reverse may be anticipated.

Sufficient time cannot be had before the close of the session, even if a large clerical force could be commanded, to give in proper detail the manufacturing capital in each group and county. The aggregates only are given for the whole State.

The value of the real estate depends upon the condition of agriculture, commerce and manufactures; whenever they are prosperous, there is a steady accumulation of personal property in the shape of realized capital aggregated in banks. This capital becomes more disintegrated as the country grows more prosperous, for aggregated capital is less productive as individual capital accumulates and seeks new combinations in manufacturing enterprises.

The present prospects and future condition of markets is noticed as giving important facts in regard to the value of farm lands, and village and city real estate, in the aggregate and for each group.

The State census of 1860 has been taken as the basis for agricultural and manufacturing statistics, not only from the fact that it is better adapted in its detail, but that it is more under the control of the State, and can be made better subservient to the plan for a more complete and systematic collection of facts than the census of the United States. It has, however, been found full of faults and errors.

As the time draws near for the next census, it is important that preparations should be begun this year; and it is respectfully suggested, that in arranging the schedules, a very great improvement can be made upon those of the last census.

It is not important how many currants or gooseberries were raised in 1864 or '65, but it is important to know how many acres are in wood land

or absolute waste, as well as how many are improved. It is also important to know how many acres are occupied by buildings, roads and fences; how many by orchards, by nurseries and vineyards, as well as the quantity and value of their products.

It is also important to know how much land is in village and city occupation, and the population of each, distinguished from farming or rural population.

The schedules in regard to animals should also be extended, especially those relating to sheep, dividing them into fine and coarse wooled.

Indeed, any person who has had occasion to study the condition of the property of this State, can readily suggest many important sources of information which are now entirely wanting in the development of the industrial resources of the State.

Our great need at this time is a department devoted to the assessment of property. The present method is so entirely defective and partial, that in many cases the levy of taxes upon individual property is little better than a farce, while upon others it amounts to a serious burthen.

The assessment of property for purposes of taxation interests almost every person in the State, and spreads over its whole available wealth, amounting to billions of dollars. Yet the system is one of the most defective which is known in the history of any civilized people.

A bureau of assessments, if properly conducted, will gradually improve this defective system and introduce order and equity into the administration of the tax laws.

No originality is claimed for this report beyond the grouping of the counties. That has grown out of a repeated personal examination of all parts of the State, with reference to the value of its lands and to its general industrial resources.

Information has been sought in all places where it could be found, and when found, appropriated. In the general arrangement and detail of the report no model has been followed, simply because none existed which gave any adequate idea of the internal resources of the people of a State. Imperfect as this report may be, yet it fills a gap in regard to the material condition of the people, which it was important should be closed. It is the first of a series of reports that should be made as often as once in five years, and its importance will become more manifest each year.

It was intended at first to give the valuation of all the real estate with the same minuteness of detail as is shown in the valuations of Erie county, page —, ample materials being in hand therefor; but upon reflection it seemed best to defer those valuations until they could be tested by a more thorough examination, if means should be permitted for that purpose.

The tables in the appendix will be found worthy of study. Tables G and H are particularly useful in regard to the density of animals in the different groups, as well as the proportion of general crops grown in each.

The tables at the end of each group give the census details for each county in the group.

If this report be the means of disseminating a better knowledge of the true condition of our State among all classes of its citizens, an important work has been accomplished, and the labor of years not in vain.

CHAPTER I.

Boundaries of State—Area in Square Miles, Burr's Atlas—Boards of Supervisors' Returns—Acres, in State Census—Conflicting Estimates—Census Area Adopted—Square Miles Improved—Square Miles Unimproved—Acres Improved—Unimproved—Per cent of Unimproved to Improved, in Groups—Topography—Three Ranges of Mountains—Country west of Mountains—Taconic System—Rivers—Water Power Uncertain—Facility for Reaching Coal—Effect on Water Power—State Manufacturing Centre—Divided into Groups—Why—Groups and Names of—Per cent of Surface in Each.

Geography, Topography and Division of State into Agricultural Groups by Counties.

The State of New York is situated between 40° 30 min. and 45° north latitude, and between 5° 5 min. of east and 2° 55 min. of west longitude from the city of Washington. It is bounded on the south in part by the Atlantic ocean, by the States of New Jersey and Pennsylvania; west by part of Pennsylvania, Lake Erie and Niagara river; north by Lake Ontario, part of the river St. Lawrence and of Canada East; east by the States of Vermont, Massachusetts and Connecticut.

The area, according to Burr's Atlas, is 46,200 square miles, or 29,568,000 acres.

The returns of the boards of supervisors of the several counties of the land assessed by the town assessors give an aggregate of 43,164 square miles, or 27,624,782 acres.

The aggregate returned by the State Census of 1855 is 41,809 square miles, or 26,758,182 acres. The difference between the two extremes is about 3,000,000 of acres.

The first estimate includes all the surface covered with water, which reaches not far from a million of acres. The census does not include non-resident and waste lands. The lands occupied by cities and villages, and corporations or roads, or the small freeholds around cities and villages, which in the aggregate, occupy an increasing portion of the available lands of the State, are not included*. The real quantity of land will be found not far from 28,000,000 of acres, and at that quantity it is safe to place the area of the State.

But the figures and deductions of this report are based upon the quantity returned by the census.

The census area is 41,809 square miles, whereof there are:

Improved	21,340	square miles.
Unimproved	21,469	do
Total	42,809	do

Reduced to imperial or federal acres at 640 to the square mile, and we have:

Improved acres	13,657,490
Unimproved acres	13,100,692
Total acres	26,758,182

The relative proportion of each is:

Improved	51 per cent.
Unimproved	49 do

* They amount to about 1,500,000 acres.

Of the unimproved lands of this State there will ultimately be brought into use in the several groups as follows:

1st group	300,000	acres.
2d group	200,000	do
3d group	1,000,000	do
4th group	2,000,000	do
5th group	2,500,000	do
6th group	200,000	do
Total	6,200,000	do

Whereof only a small portion will be arable, but most of it must be natural pasturage and meadow. Nearly all of the arable land of the State is now under cultivation. The proportion which exists between arable and grass will be largely in favor of grass lands hereafter.

TOPOGRAPHY.

Surface.—The State lies upon that portion of the Appalachian mountain system where the mountains generally assume the character of hills, and finally sink to a line of the lowlands that surround the great depression filled by Lake Ontario and the St. Lawrence river.

Three distinct ranges or mountain masses enter the State from the south, and extend across in a general northeast direction. The first or most easterly of these ranges (a continuation of the Blue Ridge of Virginia) enters the State from New Jersey and extends northeasterly through Rockland and Orange counties, to the Hudson river, and appears on the east side of that river, and forms the highlands of Putnam and Dutchess counties. A northerly extension of the same range passes into the Green mountains of western Massachusetts and Vermont. This range culminates in the highlands upon the Hudson. The highest peaks are 1,000 to 1,700 feet above tide. The rocks which compose these mountains are principally primitive or igneous, and the mountains themselves are rough, rocky and precipitous, and unfit for cultivation.

The second series of mountains enter the State from Pennsylvania, and extend northeast through Sullivan, Ulster and Greene counties, terminating and culminating in the Catskill mountains, upon the Hudson. The highest peaks are 3,000 to 3,800 feet above tide. The Shawangunk mountains, a high and continuous range extending between Sullivan and Orange counties, and into the south part of Ulster, is the extreme east range of this series.

The Helderberg and Hellibash mountains are spurs extending north from the main range into Albany and Schoharie counties. This whole mountain system is principally composed of the rocks of the New York system, above the Medina sand-stone. The summits are generally crowned with old red sand-stone, and with the conglomerate of the coal measures. The declivities are steep and rocky, and a large share of the surface is too rough for cultivation. The highest peaks overlook the Hudson, and from their summits are obtained some of the finest views in eastern New York.

The third series of mountains enters the State from Pennsylvania, and extends northeast through Broome, Delaware, Otsego, Schoharie, Montgomery and Herkimer counties, to the Mohawk; appears upon the north side of that river, and extends north-east, forming the whole series of high lands that occupy the northeast part of the State, and generally

known as the Adirondack mountain region. South of the Mohawk this mountain system assumes the form of broad, irregular hills, occupying a wide space of country. It is broken by deep ravines of the streams, and in many places the hills are steep and nearly precipitous. The valley of the Mohawk breaks the continuity of the range, though the connection is easily traced at Little Falls, the Noses, and at other places. North of the Mohawk the high lands extend in several distinct ranges, all terminating upon Lake Champlain. The culminating point of the whole system, and the highest mountain in the State, is Mount Marcy, 5467 feet above tide. The rocks of this region are principally of igneous origin, and the mountains are usually wild, rugged and rocky. A large share of the surface is unfit for cultivation, but the region is rich in minerals, and especially in an excellent variety of iron ore.

West of these ranges, series of hills, forming spurs of the Alleganies, enter the State from Pennsylvania, and occupy the south half of the west part of the State. An irregular line, extending through the southerly counties, forms the water-shed that separates the northern and southern drainage; and from it the surface gradually declines northward until it finally terminates in the level of Lake Ontario.

The portion of the State lying south of this water-shed, and occupying the greater part of the two southerly tiers of counties, is entirely occupied by these hills. Along the Pennsylvania line they are usually abrupt and are separated by narrow ravines, but towards their summits become broader and less broken. A considerable portion of the high land region is too steep for profitable cultivation, and is best adapted to grazing.

On the eastern border of the State the Taghkanic range of mountains extends more or less into the State and gives character to all that portion which is not covered by the ranges before mentioned.

Nearly the whole of the 2d, 3d and 4th groups are covered with mountains or their foot hills, whose rocks are primary or metamorphic, and the character of the rocks affects the condition of their agriculture. The 5th group rests principally upon sedimentary silicious rocks, and the 6th upon calcarious, or limestone.

RIVERS.

There are two general systems of drainage, viz: North and South. The northern pours its accumulated waters into the ocean through the St. Lawrence river. The southern system is divided into four basins, drained by large rivers, which reach the ocean by different routes. The Hudson river reaches the ocean in the bay of New York, flowing south and easterly from some of the highest peaks of the Adirondacks, and then south. The Delaware, which has its rise among the mountains of the second series in Delaware county, and drains that region, flows southwardly to the ocean through the Delaware bay. The Susquehannah, which has its head in the Catskill range, in Otsego county, drains the whole region from the hills or low mountains of Broome county to the eastern rim of the basin of the Genesee, in Steuben and Allegany counties; and the Allegany, running westerly into the Ohio, drains the country west of the western rim of the valley of the Genesee.

The Genesee river takes its rise in Pennsylvania, and runs north into Lake

Ontario. Through the 5th group it drains a narrow basin. In the 6th it becomes broader, until after the river passes the falls at Rochester.

The power furnished by these rivers and their numerous branches is not sufficiently constant to warrant the expectation of any large manufacturing centres, unless upon those which flow into the basin of the St. Lawrence.

As the sources of these streams are cleared of their forests, the flow of water becomes less regular, and the supply smaller, until it would be quite impracticable to depend upon them for a steady motive power.

The Niagara river and the St. Lawrence furnish a water power which can be cheaply utilized, and is practically without limit in extent, durability and equable flow. Many of the rivers flowing into Lake Ontario and into the St. Lawrence furnish immense hydraulic power, which has only to be utilized to become the centres of immense manufacturing towns.

Still, the facility for reaching the coal fields of Pennsylvania, and the inexhaustible supply of fuel which can thus be cheaply furnished, will for a long time prevent the occupation of the power that now runs to waste. Yet the day must come when any available waterfall will be made the centre of a busy manufacturing population.

This State contains in its soil and climate, its motive power, and the facilities for marketing the surplus of its labor, or of procuring the raw material for its artisans, the power of becoming the great manufacturing centre of the Union.

Legislation which by any proper means increases these facilities, is wisely bestowed.

COUNTIES OF THE STATE DIVIDED INTO GROUPS.

In a State so diversified as New York in its topography, climate and soil, no just idea can be given of the value of its land, the condition of its agriculture and the tendency of its population, except by larger geographical divisions than those represented in its several counties. Counties are only arbitrary creations for municipal or civic purposes; and their condition or valuation in regard to other counties must depend upon soil and location. Adequate results in regard to the true condition of all the counties can only be obtained by generalization.

To gather facts relative to the various industries of the sixty counties of the State, and to compare those facts and draw proper conclusions, requires an amount of labor that few care to bestow upon the subject. But if these several counties were grouped into appropriate divisions, the task would be easy of accomplishment.

For civil polity we have them grouped into congressional, senatorial and judicial districts. It is equally important for the purposes of a proper representation of the condition of their agricultural and other industrial pursuits.

In grouping these, reference should be had to their topography, similarity of soil, climate, and peculiarities of cultivation, as well as the means for concentrating a large population, the proximity of a market, and the facilities for reaching it from all parts of the territory.

A part of the State's surface is mountainous, another part is traversed by short ranges of mountains, and is broken into hill and dale; another is simply rolling or hilly, abounding in hills of moderate elevation, crowned with narrow plateaus, and divided by deep and narrow valleys. Still another

is comparatively a broad level tract, nearly resembling an open champaign country. The soil is as various as the topography, for while a part is fertile and abounds in the elements of perpetual fertility and the profitable cultivation of grain, other portions are comparatively sterile, and can only be used for the production of grass.

The grouping, then, has brought those counties together which most resemble each other in their general features and in their system of agriculture. And although they are not completely accurate in their outline, inasmuch as counties could not be divided, yet for all practical uses the divisions will be found sufficiently accurate to serve the purpose designed.

GROUPS.

The divisions or groups are named as follows:

I. Atlantic or Long Island.

II. Eastern counties or Hudson river.

III. Catskill or South Highlands.

IV. St. Lawrence or North Highlands.

V. Central and Southwestern or dairy counties.

VI. Ontario Lake or Wheat.

First Group.—The first group contains the island of Manhattan, Long Island and Staten Island, and the small adjacent islands, and includes the city and county of New York, and the counties of Kings, Queens, Suffolk and Richmond—5.

Second Group.—The second group contains the counties of Westchester, Putnam, Dutchess, Columbia, Rensselaer and Washington—6.

Third Group.—The third group contains the counties of Rockland, Orange, Ulster, Greene, Albany, Schenectady, Montgomery, Schoharie, Otsego, Delaware, Sullivan—11.

Fourth Group.—The fourth group contains the counties of Saratoga, Warren, Essex, Clinton, Franklin, St. Lawrence, Herkimer, Hamilton and Fulton—9.

Fifth Group.—The fifth group contains the counties of Jefferson, Lewis, Oswego, Oneida, Madison, Cortland, Tompkins, Schuyler, Chemung, Tioga, Broome, Chenango, Steuben, Allegany, Cattaraugus, Chautauqua, Erie and Wyoming—18.

Sixth Group.—The sixth group contains the counties of Onondaga, Cayuga, Wayne, Seneca, Ontario, Yates, Livingston, Monroe, Orleans, Genesee and Niagara—11.

The proportion of each group to aggregate general area of State, and to aggregate of improved area, is

	General aggregate.		General aggregate improved.	
I	3	per cent	2	per cent.
II	9	do	12	do
III	16	do	18	do
IV	24	do	13	do
V	35	do	36	do
VI	13	do	19	do
	100		100	

The accompanying map of the State indicates at a glance the outline of the several groups.

CHAPTER II.

Markets, resources in Soil and Sub-soil—Mines and Agriculture—Surplus of Each—Affected by Markets—Taxation must not take Capital—Commerce, Manufactures, Agriculture, index of Resources—Commerce and Manufactures Build and Sustain Towns—Peace and Quiet—No Rivals to Agriculture—Value of Lands depend upon Markets—Local Markets—General Consumption—1st Group, 2d Group, 3d Group, 4th Group, 5th Group, 6th Group—Facilities for Reaching Markets—Two Classes—Highway—Railroads—Canals—Average Highways in Groups—Commercial Routes—Kinds—Miles in Groups—Benefits of Commercial Routes—Towns—Cities—Farms.

Markets, and Facilities for Reaching.

The resources of a State are in its soil or subsoil, its agriculture and mines, and in intelligent labor to develop them.

The wealth is the surplus products of the one and the gross products of the other.

This surplus is increased or diminished by the facilities furnished for a cheap and easy transit of the products whereby profits accumulate in the hands of the producers. The proximity of markets stimulates production, and accumulates profits, which accumulation is the measure of a people's capacity to bear taxation.

No system of taxation can long survive, which not only absorbs profits, but trenches upon capital, for when it reaches that point repudiation in some form, or ruin is sure to follow.

The condition of its agriculture, manufactures and commerce, is an index to the prosperity of a State or nation. If its agriculture be unsatisfactory, its manufactures will be feeble, and upon the condition of its agriculture and manufactures depends that of its commerce.

Commerce builds towns, but they are sustained only by successful manufacturing, and a surrounding and vigorous agriculture.

A vigorous agriculture can be maintained only by successful manufacturing centres, easy of access for its surplus products, and commerce assumes proportions of magnitude only when the surplus of the two industries are large and require increased capital and skill in their exchange.

But the three are the offsprings of liberty, order and peace, and these prime conditions must be conserved or their success is not possible. Therefore the rigorous enforcement of those laws which protect the one, enforce the other and preserve the last, so that all industry is sure of the enjoyment of its products, is the most important duty of the government, and its prosperity depends upon the faithful discharge of that duty.

Many have looked upon commerce and manufactures as rivals to agriculture, and that any legislative action which helped to develope either the one or the other, was so much done at the expense of agriculture. The idea is erroneous and hurtful to agriculture, especially so in this State, whose prosperity depends so much upon commerce and manufactures. The distinction between agriculture and manufactures is essentially false.

To bring land into cultivation is a manufacture; no man is more of a manufacturer than the farmer. The transport, sale and purchase of agricultural produce, is trade, perfected in commerce. But this kind of manufactures and commerce being of prime necessity it can dispense a little

more with skill and capital than the others, still they remain in a state of infancy. Yet when these two powerful aids are supplied all become vastly more productive.

There can be no profitable agriculture without profitable manufactures, for commerce and manufactures can alone abundantly provide agriculture with the two most powerful agents of production which exist, viz., markets and capital.

To form, then, a proper estimate of the value of farm lands and of real estate generally, as well as the prospect of accumulating capital or personal property by all classes, we must consider what is the prospect of markets, that is to say, the sale of agricultural products to a population not contributing to produce them, and the means of communication between the consumer and the producer.

LOCAL MARKETS.

It is to be regretted that ample time and a sufficient clerical force could not be had whereby the vast amount of facts in regard to the detail of manufacturing in the several counties and groups might have been properly digested and tabulated, and these reports will only be perfected when those facts are properly vitalized. The aggregates are tabulated in table D of the appendix.

It may be premised generally that, with the exception of butter and cheese, the population, resident and transient, of the State, consumes more than all the surplus products of its agriculture, and is dependent upon the surrounding States for the balance consumed. A brief description of the market prospects in the different groups may not be inappropriate.

Commencing with the first division or group, New York city, and the city of Brooklyn are the great and absorbing markets of the State as well as of the continent, and they contain all the elements for constantly increasing demand or consumption, because they are successful manufacturing and commercial towns.

It is truly estimated that not less than two millions of people, resident and transient, are fed daily from New York as a common market centre. The examination of its annual consumption of butchers' meat establishes this fact. Manufacturing is on the increase in all the counties of this group.

In the second group, as far up as White Plains in Westchester county, it may be considered as a suburb of New York city. Peekskill is a large and thriving manufacturing town, and derives much of its importance from its iron establishments. Cold Spring, in Putnam county, is an important iron manufacturing point. Fishkill, Poughkeepsie, and numerous other points in Dutchess county. Hudson, Troy, and numerous other points along the river and inland upon the railroads or near them are rapidly increasing in population, from the concentration of commercial and manufacturing capital.

In the third group, Nyack, Newburgh, Rondout, Catskill, and Albany, on the Hudson river, Cohoes, on the Mohawk, Schenectady and Amsterdam, are important manufacturing towns. Otsego county has several factories of textile fabrics, which will be increased, and in Ulster, Delaware and

Sullivan, are also extensive manufactories, which may ultimately grow into consuming centres of importance.

The fourth group has manufactories in Saratoga, Herkimer, Fulton, St. Lawrence, Franklin and Clinton, but not extensive, nor are they likely to increase to such an extent as to materially affect the production in their neighborhood, nor are the resources of the soil such as to sustain at any point a very dense population. Its mineral resources may ultimately insure markets.

In many parts of the fifth group there are already manufacturing centres of importance. Buffalo and Oswego are commercial as well as important manufacturing towns. Watertown, Utica, Oriskany and vicinity, Elmira, Ithaca, Jamestown, Corning, Hornellsville, Olean, and numerous other towns, have elements for future important manufacturing centres. Indeed, this whole group must ultimately contain a large aggregate consuming population.

Nearly all the public avenues leading from this State to the vast coal fields of Pennsylvania are through this group; and it is for the present and future prosperity of our State that such avenues be multiplied wherever practicable, for upon cheap fuel rests the wealth of our future population.

These coal mines are of far more importance to us than the gold mines of California. A people who can command cheap fuel and unlimited iron mines, not only makes the richest placers tributary, but levies a tax upon the industries of the world. With judicious legislation we can command the one; we already possess the other.

The sixth group is almost a succession of cities and villages. Rochester, Auburn and Syracuse are manufacturing centres, rapidly extending; but at Niagara Falls, at Lockport, Medina, Seneca Falls, exists a motive power already used to some extent, but capable of immense enlargement, and at no distant day each will become an important consuming centre; but there are numerous villages continually expanding, so that at this time it is doubtful if the surplus products of the adjacent land, except in wheat and fruit, in the aggregate, are adequate for the supply of the non-producing population.

When it is considered that in this State, of the aggregate population, only about thirty-five per cent. is rural or producing, it may be readily inferred that there must exist somewhere markets for the surplus product of their agriculture.

FACILITIES OF TRANSPORTATION.

The means for inter-communication of persons and property may be divided into two classes: 1st, local, as the public highways of the State; or 2d, general, as railroads, canals, or other navigable waters. The one is local in its uses and benefits; the other general, and principally used for the furtherance of commercial enterprises.

The extent and condition of these two classes of public conveyance are an index to the prosperity of the country.

1ST. LOCAL OR PUBLIC HIGHWAYS.

The aggregate of highways average $1\frac{1}{4}$ mile to a square mile of surface, but vary in the different groups, thus:

1st group:	2	miles of highway to	1	square mile.		
2d do	2½	do	do	1	do	
3d do	1	do	do	4	do	
4th do	1	do	do	10	do	
5th do	1	do	do	2	do	
6th do	3	do	do	1	do	

The system for keeping these roads or highways in repair is very defective, and a vast amount of labor is annually worse than wasted upon them. Still at most seasons, when their use is necessary, they are in sufficient repair to answer their purposes and furnish easy access to the adjoining markets.

2d. GENERAL OR COMMERCIAL ROUTES.

Excluding the shore lines of lakes Ontario and Erie, and of the waters around Long and Staten islands, the whole aggregate length of these routes are:

	Miles.
Railroads	2,743
Rivers and lakes	353
Canals	916
Total miles	4,012

The average square miles of area to one mile of route, is eleven square miles of surface to one mile of route.

But the aggregate proportion varies largely in different groups, though the Hudson river is counted in both the second and third groups as an independent route in each. The aggregate of routes and average square miles is:

1st group:	1	mile of route to	8	square miles of surface.		
2d do	1	do	5.5	do	do	
3d do	1	do	12*	do	do	
4th do	1	do	19	do	do	
5th do	1	do	11	do	do	
6th do	1	do	6	do	do	

When it is considered that the East river and the ocean, and numerous creeks and bays surround Long Island, and render all parts of it easily accessable to water carriage, it will be found that the proportion of route to square miles of surface is much larger than in any other group, though nominally the third in the list.

But these great commercial routes are the means of furnishing local markets to the farmers along their several lines, aside from the facilities of reaching distant markets with the surplus not there consumed. Upwards of thirty-five millions of dollars are annually collected from the operations of the roads, canals, lakes and rivers. Only a small percentage of this sum goes to repay or replenish capital. The balance finds its way ultimately to the hands of the farmers for the necessaries of life, thus creating a constant market for their surplus products. And these local markets are continually enlarging and improving, as the internal commercial interest flourishes.

Along all these routes are thriving villages or cities, human ant hills of artizans and their dependents, who rely upon their daily wages for their

* This includes 120 miles of river route.

daily food. What becomes of these wages? Do they not go in the first place to pay for bread, meat, milk, butter, cheese, which are directly supplied by agriculture along the routes. Consequently there exists a constant demand for productions which our own agriculture can hardly satisfy, and which is for her, to some extent, an unlimited source of profit. The power of these outlets is felt all over the country, giving value to the farm lands in nearly every section of the State.

The evidence of the prosperity of these villages and cities is found in the fact that not only their aggregate valuation is now fully equal to all the lands of the State, but that each year sees this valuation rapidly increasing, while that of the farm lands remain stationary, or increasing so slowly as scarcely to be perceptible.

The census and assessment rolls are not sufficiently specific in regard to the detail of village freeholds. Hereafter it should be shown how much of the real estate of the country is held and occupied in less quantities than ten acres; that quantity being fixed as the maximum of a village lot.

It is only by this means that any reliable data can be obtained for a judicious equalization of values among the different counties.

CHAPTER III.

Population—Classified—City—Village—Rural—Proportion of Each—Density of—Estimated by Improved Square Miles to City—Village—Rural—Population to Square Mile—To improved Land—City to Square Mile—Village do—Rural do—Value of Real Estate depends on Condition of Towns—Population an index of Value—Rural Population reached Maximum—Distribution of Improved Land—Terms Defined—Pastures—Meadow Grains—White Straw Crops—Fodder Crops—Roots—Commercial Crops—Proportions—Tillage Crops—Acreable Yield—Value of Vegetable Crops—Totals—Farmers sell Straw—Bad Practice—Animals—Kinds—Proportions—Horses estimated in Cities—Animal Products—Consumption of Beef—Value of Animal Products—Recapitulation of Values—Sum Added—Acreable Value—Per ct. of Capital.

Population, Distribution of Improved Land in Grass, Grain, and other Crops—Quantity.

POPULATION.

By the United States census of 1860, the State contained a population of 3,880,947. After deducting the population of the several cities, and estimating the village and rural population upon the basis partly furnished by the State census of 1855, and upon actual numbers, furnished in some instances by the U. S. census, of village population, the inhabitants may be classified in numbers as:

City populations	1,451,288
Village do	1,105,615
Rural do	1,354,144
Total	3,881,047

The proportion of each to the other is:

City	37 per cent.
Village	28 do
Rural	35 do

DENSITY OF POPULATION.

In arriving at the density of population on a given surface or country, it is usual to estimate the gross population by the aggregate of square miles of surface.

This does not properly show the condition or productive power of the soil, because in most countries, more or less of the surface is waste, or so occupied as not to be productive, either in its soil or sub-soil, though the lands thus occupied may have a marketable value far beyond the surface of the surrounding country.

This is the condition of real estate used for cities or villages, and hence the surface thus occupied should be deducted from the general aggregate, and as the unimproved lands are unoccupied and unproductive, they should be subtracted also, and the rural population estimated upon the improved lands in their occupation.

There are thirteen incorporated cities, including Poughkeepsie, whose aggregate area, including their suburbs, is 100,000 acres, or 156 square miles.

There are 2,000 villages also, occupying an average of a square mile each, which would give 2,000 square miles, or 1,280,000 acres.

The distribution of the improved land among the different classes of population would be:

Rural population	18,783	square miles.
Village do	2,000	do
City do	156	do
Total square miles	21,339	

Aggregate population to total area is 91 inhabitants to the square mile.

Aggregate of improved land to total population is one square mile to 181 inhabitants.

City population to aggregate of city area is 9,047 inhabitants to 1 square mile, New York averaging 38,609, and Buffalo, 2,250 inhabitants to the square mile.* Village population averages 553 persons to the square mile.

The rural population averages 70 persons to the square mile.

In fixing valuations regard must be had to the density of population in the different groups, or in the various counties of the groups, and these values will be varied by the condition of the population, whether, 1st commercial, 2d combining manufacturing and commerce, or 3d simply manufacturing.

Property, real and personal, will bear a higher proportional value.

1st. In towns combining manufacturing and commerce.

2d. Towns principally engaged in commerce.

3d. Towns whose population are principally engaged in manufacturing.

Rural population in given localities should be valued by the average population to the square mile of improved land. Population will be found among the best means of arriving at the power of a given locality to bear its burthen of taxes. Other things being equal, wealth follows population.

The tendency of population in this State is to concentration, and each decade will find the proportion between urban, suburban, and rural growing larger with an accelerated ratio.

The rural population reached its maximum density prior to the year 1850, and has been steadily decreasing since. The increase of population is due entirely to manufactures and commerce.

DISTRIBUTION OF IMPROVED LAND.

Of the terms used, "*improved land*" means all land enclosed and capable of useful occupation for agricultural production. "*Arable*" is applied to all land which can be worked with the plow. "*Tillage* or *tillable*," means all land under the plow, or that is in crops which follow it.

In classifying the land in tillage, the term "*white straw crops*" is used, because in many localities these crops are grown not only for the grain, but the straw furnishes a more valuable marketable product than the grain, and is therefore sold from the farm. "*Fodder crops*" is applied to those crops which are principally used for animal food, and whose straw is always consumed upon the farm. "*Root crops*" is applied to both potatoes and turnips, though the latter, properly speaking, is the root crop.

"*Commercial crops*" are all those crops specially grown for traffic.

The improved land in agricultural employment is estimated by the farmers occupying it, and aggregated in the census of this State for 1855, at 13,657,490 acres, viz:

* Buffalo has an area of over 23,000 acres; New York of 14,000 acres.

Pasture acres	4,948,114
Meadow acres	3,384,440
Total in grass	8,332,554

The proportion is:

Pasture	36 per cent.
Meadow	25 do
Total	61 do

The proportion, then is, 61 acres of every 100 of the improved land is in grass, viz: 36 acres in pasture, and 25 acres in meadow.

Spring wheat, acres	194,346
Winter, do	611,141
Oats, acres	1,349,384
Rye, acres	281,714
Barley, acres	212,608
Total white straw crops	2,649,193

The proportion of each crop to the acre in tillage is:

Spring wheat	4.7 per cent.
Winter wheat	15 do
Oats	33 do
Rye	7 do
Barley	5 do
Total per cent. of white straw crops	64.7 do

Buckwheat, acres	293,253
Indian corn, acres	817,601
Peas, acres	48,154
Beans, acres	16,917
Total in fodder crops	1,175,905

The proportion that each crop bears to the tillage acre is:

Buckwheat	7 per cent.
Corn	20 do
Peas	1 do
Beans	4 do
Total in fodder crops	28.4 do

Potatoes, acres	220,575
Turnips, acres	7,578
Total in root crops	228,153

The proportions are:

Potatoes	5.4 per cent.
Turnips	0.2 do
Total in root crops	5.6 do

Flax, acres	11,764
Hops, acres	9,481
Tobacco, acres	786
Market gardens, acres	8,945
Total commercial crops	30,976

The proportion of each crop is:

Flax	00.3
Hops	00.2
Tobacco	00.02
Market gardens	00.2
Total in commercial crops	00.72

Recapitulation of percentages of land in tillage:

Spring wheat	4.7
Winter wheat	15
Oats	33
Rye	7
Barley	5
Buckwheat	7
Corn	20
Peas	1
Beans	00.4
Potatoes	5.4
Turnips	00.2
Flax	00.3
Hops	00.2
Tobacco	00.02
Market gardens	00.2
Miscellaneous	00.6
	100.0

DISTRIBUTION OF TILLAGE CROPS.

Quantity and acreable average including meadows:

Spring wheat, bushels	2,033,353	per acre bush. 11
Winter do do	7,059,049	do 12
Oats, do	27,015,296	do 20
Rye, do	3,039,438	do 10
Barley, do	3,563,540	do 17
Buckwheat, do	2,481,079	do 8
Indian corn, do	19,290,691	do 23
Peas, do	705,976	do 15
Beans, do	244,079	do 15
Potatoes, do	15,191,852	do 69
Turnips, do	985,522	do 130
Flax seed, do	87,093	do 8
Lint, lbs	4,907,556	per acre lbs. 445
Hops, lbs	7,192,254	do 758
Tobacco, lbs	946,502	do 1,204
Market gardens, value of product	$1,138,680	value per acre, $127
Hay, tons	3,256,448	per acre tons, 1
Grass seed, bushels	120,866	1 bushel to 28 acres.

VALUE OF VEGETABLE PRODUCTS.

Spring wheat	$2,541,691
Winter wheat	8,823,311
Oats	10,536,965
Rye	2,431,550
Barley	2,850,832
Total value of white straw grain	$27,184,849
Buckwheat	$1,240,539
Indian corn	15,432,753
Peas	564,774
Beans	488,158
Total value of fodder crops	$17,726,224
Potatoes	$3,797,963
Turnips	98,552
Total value of root crops	$3,896,515
Flax seed	$130,640
Flax lint	490,756
Hops	719,225
Tobacco	94,650
Market gardens	1,138,680
Total value of commercial crops	$2,573,951

RECAPITULATION.

Total value of white straw crops	$27,184,849
do fodder do	17,726,224
do root do	3,896,615
do commercial do	2,573,951
Total value of tillage crops	$51,381,639
Value of meadow product	26,297,316
Value of orchard product	1,642,522
Total value of annual vegetable product	$79,321,477

The average annual value of the vegetable product is $6 per acre for all the improved acres.

It is the practice among farmers of the first and second groups, and along the river in the third, to sell not only their hay, but their straw also, as in many cases the value of the straw exceeds the value of the grain it produced. This adds largely to the apparent gains of their districts. When its place is not supplied with the manure it should have produced, the land suffers ultimately to an extent which makes the real profits of a series of years largely in favor of the farmer who consumes all his straw and hay upon his farm, and seeks his surplus in the animals, which reduce it to manure.

There are no lands in this State that will not rapidly deteriorate in value for agricultural purposes when annual crops are taken and no manure returned.

The prices assumed in calculating values were those current the year the census was taken. The same rule has been adopted in regard to animal products.

ANIMALS—THEIR NUMBER.

Total head of neat cattle		2,105,465
Under one year old	311,174	
Over one year old, exclusive of working oxen and cows	577,887	
Working oxen	144,597	
Cows	1,068,427	
Cattle killed for beef	225,338	
Horses		579,715
Mules		2,254
Sheep	3,217,024	
Sheep shorn	2,630,207	
Reduced to cattle seven to one		459,575
Total cattle or their equivalent		3,147,004
Swine under six months	530,176	
Swine over six months	539,616	
Total swine	1,069,792	

Total value of live stock per census, $103,776,053.

The average value of stock per acre of improved land, is $7.60.

RELATION OF LAND TO ANIMALS, AND ANIMALS CLASSED TO AGGREGATES.

The average of animals, reduced to neat cattle, to the aggregate acres of improved land is	1 to	4.3 acres.
Total neat cattle	1 to	6.5 do
Working oxen	1 to	94 do
Cows	1 to	12 do
Horses	1 to	24 do
Mules	1 to	6,050 do
Sheep	1 to	4 do

The relative proportion of classes to aggregates are:

Cattle under one year	14	per cent.
Cattle over one year	27	do
Oxen	6	do
Cows	50	do
Sheep not shorn	18	do

Average weight of fleece, 3½ pounds.

One beef killed to seventeen inhabitants.

As large numbers of horses are used by the city and village population, the above proportion does not properly express their relation to the improved land. The fourth group has comparatively few villages and no cities or large towns. Its inhabitants are more exclusively rural than any other group. The proportion of horses to inhabitants will approximate the number used for agricultural purposes by the rural inhabitants in other groups.

In this district, then, there is only one horse to five persons. The average for the whole State is one to six. The proportion in the city of New York, which is exclusively urban in its population, was one to forty-four. Taking that number as applying to all the cities and villages, and it would be safe to estimate the number of horses of all ages kept upon the farm, as averaging one to 2.7 rural population, or one to twenty-seven acres of improved land.

ANNUAL ANIMAL PRODUCTS.

Wool, lbs	9,231,959
Butter, lbs	91,293,073
Cheese	33,944,249
Milk sold, gals	20,965,861
Swine sold over 6 months	539,616
25 per cent of sheep	804,256
30 do cattle over 1 year	173,366
5 do horses	25,000
Cattle killed for beef	225,338

The annual consumption of beef by all the inhabitants of this State will average four ounces per head per day, or one and a-half pounds per family per day. There were in 1855, 632,746 families. This would make the daily consumption average 949,119 lbs., which at 700 lbs. dead weight of animal, would be equal to an annual consumption of 494,220 head of cattle. We may, therefore, safely estimate the cattle killed for beef, as from the State, or that the number is equal to that surplus.

VALUE OF ANIMAL PRODUCTS.

Wool	$3,692,783
Butter	13,694,961
Cheese	3,394,424
Milk sold	1,676,269
Swine	5,396,160
Sheep	1,608,512
Cattle	3,467,320
Horses	750,000
Cattle killed for beef	4,506,760
Poultry and eggs sold	2,437,271
Total value	$40,624,460

Recapitulation.

Annual value of vegetable products	$79,321,477
Annual value of animal products	40,624,460
Total value of animals and vegetable products	$119,955,937

If to this sum be added for the annual consumption of animal and vegetable products by the rural population not enumerated in the census, at least $10 per head, making an aggregate of $13,500,000, we have a grand total of $133,455,937 as the product of agriculture annually.

Allowing that one-half should go for cost of production, and the other half to capital, and we have for each half—

Cost of production	$66,727,969
To capital	66,727,968
Total values of products	$133,455,937

The gross annual average product for the improved land would be $9.77 per acre, giving to the farmer for the labor and cost of production $4.88 per acre, and to his capital, $4.88 per acre also. This would indicate an average fixed capital employed in agriculture of $70 per acre for all the improved land.

The census makes the capital thus employed equal to an average of $67.57 per acre.

The average capital of $70 per acre is thus divided, viz:

Land	86 per cent.
Stock	11 do
Tools, etc.	3 do
	100

CHAPTER IV.

Valuations—Real Estate—How Obtained—Erie County given as a Specimen—New York city Valued—Cities Valued—Aggregates—Unimproved land Valued—How—Average value of Land—Personal Estate—Difficult to Analyze—Aggregates—Insurance Risks—Aggregate Real and Personal—Insurance Department gather Statistics—Agriculture, detailed in Groups—General—Farming improved in Five Years—Manure Increased—Dairy Tendency—Animal and Vegetable Produce—One must Exceed the Other—Competition of other States—Improvement of Farms Necessary—Different Crops—Vineyards.

Value of Real and Personal Estate.

REAL ESTATE.

The plan adopted in making the valuation of real estate in table I of the general appendix, was first to classify the farm lands by dividing them into first, second and third class, according to their productiveness or location. Each county was then examined by townships, and the several townships classified, and then the lands were valued and classified in each town, and the aggregate produced the results arrived at in the column of acreable valuation for farm lands in table I of the general appendix. Real estate of cities was also analyzed by area and lots, and valued in classes, and the aggregate gave the average value per lot. Real estate of villages and corporations was estimated by the known value of certain villages, and the corporations, mostly railroads, either by their returns or by the miles in a given county.

During the five years that the State Assessors have been acting, constant efforts have been made to induce the boards of supervisors to adopt the plan of separating the village from the other real estate, but except in a very few instances, without success. Generally they have contented themselves with complaining of our valuations of their counties, but have done nothing to prove valuation erroneous.

The valuations of the county of Erie and of the city of Buffalo are given below, that a proper idea may be formed of the manner wherein the several valuations were achieved and the basis adopted by the writer:

ERIE COUNTY.

NORTH TOWNS.

CLASS ONE.

Towns.	Classification of farm lands in towns.				Acres.	Aggregate value.	Val. per acre.
Amherst	1-8 1,	3-8 2,	3-8 3,	1-8 4,	33,608	$1,226,692	$36 50
Clarence	1-8 1,	3-8 2,	3-8 3,	1-8 4,	33,637	1,227,690	36 50
Newstead	2-8 1,	3-8 2,	2-8 3,	1-8 4,	33,765	1,350,600	40 00
CLASS TWO.							
Alden	3-8 2,	3-8 3,	2-8 4,	.....	20,833	651,030	31 25
Cheektowaga	4-8 2,	3-8 3,	1-8 4,	.....	18,710	631,462	33 75
Grand Island	3-8 2,	3-8 3,	2-8 4,	.....	18,600	581,250	31 25
Lancaster	4-8 2,	3-8 3,	1-8 4,	.....	23,531	888,291	33 75
Marilla	4-8 2,	2-8 3,	2-8 4,	.....	17,208	559,260	32 50
CLASS THREE.							
Tonawanda	2-8 2,	2-8 3,	3-8 4,	1-8 5,	12,555	332,707	26 50

SOUTH TOWNS.

CLASS TWO.

Aurora	3-8 2,	3-8 3,	2-8 4,	.....	23,600	743,400	31 25
E. Hamburgh	3-8 2,	3-8 3,	2-8 4,	.....	24,788	780,822	31 25
Elma	2-8 2,	4-8 3,	2-8 4,	.....	21,390	673,770	31 25
Hamburgh	3-8 2,	3-8 3,	2-8 4,	.....	25,731	810,526	31 25
W. Seneca	4-8 2,	4-8 3,	.....	.....	17,564	614,635	35 00

			CLASS THREE.				
Boston	1-8 2,	3-8 3,	3-8 4,	1-8 5,	22,730	568,250	25 00
Collins	1-8 2,	3-8 3,	3-8 4,	1-8 5,	29,496	737,400	25 00
Eden	1-8 2,	3-8 3,	3-8 4,	1-8 5,	25,265	631,625	25 00
N. Collins	1-8 2,	3-8 3,	3-8 4,	1-8 5,	26,815	670,375	25 00
Sardinia	1-8 2,	3-8 3,	3-8 4,	1-8 5,	31,937	798,425	25 00
Wales	1-8 2,	3-8 3,	3-8 4,	1-8 5,	22,600	565,000	25 00
			CLASS FOURTH.				
Brant	1-8 3,	4-8 4,	3-8 5,	.....	14,555	254,713	17 50
Colden	1-8 3,	4-8 4,	3-8 5,	.....	22,704	397,320	17 50
Concord	1-8 3,	4-8 4,	3-8 5,	.....	44,734	782,445	17 50
Evans	1-8 3,	4-8 4,	3-8 5,	.....	25,481	445,917	17 50
Holland	1-8 3,	3-8 4,	4-8 5,	.....	22,934	372,677	16 25
Total						$17,296,302	.....

Aggregate value per acre for county	$28 17
Aggregate value per acre for north towns	35 22
Aggregate value per acre for south towns	24 27

Value of classes per acre:

Class 1	$60 00
do 2	40 00
do 3	30 00
do 4	20 00
do 5	10 00

Value of City and Village, and Corporation Real Estate in said County.

THE CITY OF BUFFALO.

This city contains within its corporate limits an area of 23,874 acres. Included in streets, squares, docks, basins, and untaxable, 3,000; leaving for purposes of improvement and taxation, 20,874 acres.

The usual rule adopted in laying off city lots is to allow twelve feet to the acre, when the streets have not been deducted, or 2,500 square feet for each lot. Assuming then twelve lots to the acre, would make the city contain 250,488 lots.

One-eighth worth $500 per lot	$15,780,500
One-eighth worth $300 per lot	9,468,300
One-eighth worth $200 per lot	6,312,200
One-fourth worth $100 per lot	6,312,200
One-fourth worth $50 per lot	3,156,100
One-eighth worth $25 per lot	789,150
Aggregate value of real estate of city	$41,818,450
Value of village real estate in different towns in county, not reckoned in farm lands	6,000,000
Aggregate value of real estate of city, villages and corporation	$47,818,450

Recapitulation.

Value of real estate in city of Buffalo	$41,818,450
Value of real estate in villages	6,000,000
Value of real estate in farm lands	17,296,302
Aggregate value of real estate in Erie county	$65,114,752

If boards of supervisors would adopt the same plan in analyzing and valuing the real estate of their several counties, the trouble of equalizing would be much abridged.

REAL ESTATE.

The city and county of New York is embraced within the limits of the

corporation of the city of New York. It has upon its assessment roll of real estate 134,483 lots.

In analyzing their value in order to arrive at an average per lot, and thus at the full value of the real estate of the city, they are divided into eighths, and the average value of the lots in each division fixed as follows, $\frac{1}{8}$=16,685 lots, viz:

One-eighth	$20,000
One-eighth	10,000
One-eighth	5,000
One-eighth	3,000
One-eighth	2,000
One-eighth	1,000
One-fourth	500

Average, $5,194 per lot, or say $5,200.
Aggregate value of city lots, $699,311,600.

The value of all the incorporated city real estate of the State is:

New York	$699,311,600
Brooklyn	100,000,000
Buffalo	50,000,000
Albany	25,000,000
Troy	15,000,000
Rochester	15,000,000
Syracuse	12,000,000
Utica	5,000,000
Auburn	4,000,000
Poughkeepsie	3,000,000
Hudson	2,000,000
Oswego	2,000,000
Schenectady	1,000,000
Aggregate value of city real estate	$933,311,600
Aggregate value of village and corporation real estate,	150,000,000
Aggregate value of farm lands improved	956,054,300
Aggregate value of unimproved land	130,000,000
Total real estate	$2,169,365,900

In the foregoing aggregate, farm lands are estimated only on the improved land, and at an average of $70.00 per acre. The unimproved lands are estimated as follows:

One-eighth	$30 00 per acre.
One-eighth	20 00 do
One-eighth	15 00 do
One-eighth	10 00 do
One-eighth	5 00 do
Three-eighths	1 00 do

Average of the $13,000,000 of unimproved land $10.00 per acre, or of all the land of the State unimproved and improved at $40.00 per acre.

It will be observed that the aggregate value of the real estate of the cities, villages and corporations, equals the value of all the lands of the State, improved and unimproved.

PERSONAL ESTATE.

The aggregate of the personal property cannot be analyzed as the real estate has been, owing to the defective condition of our statistics. Still, with the dim lights which are furnished, we may approximate a total that will serve to convey some idea, though slight, of the vast amount of personal wealth in the hands of our citizens which is realized capital, or in process of conversion thereto.

The aggregate personal property returned by the local or town and ward assessors for 1862 was $313,802,682.00. Of this sum $107,556,664 was bank capital. There should be added for insurance capital taxed $20,432,-

860, making of aggregated capital $127,989,524, which leaves only $175,813,158 in the hands of individuals. By referring to table of the general appendix it will be seen that this can only represent a small portion of the personal property of the people.

The report of the Superintendent of the Insurance Department shows that the whole amount of fire risks taken by foreign and domestic insurance companies in this State for the year 1862, was $1,729,988,571.

That the amount of fire risks on the first of December, 1862, having less than a year to run was $1,280,239,044. Estimating by the amount of risks that have a year or more to run, we can safely calculate that $200,000,000 will cover all the fire risks upon fixtures which properly belong to the realty, leaving, therefore, the sum of over $1,500,000,000, as representing the personal property covered by insurance. But as all the personal property is not covered by insurance, and as only about two-thirds of the value of that insured is covered by the policy, it follows that the aggregate value of the personal property in this State must equal the value of the real estate.

If we aggregate the two we shall have

Real estate	$2,169,365,900
Personal	2,169,365,900
Total personal and real	$4,338,731,800

The data are thus given whereby this aggregate has been attained. Others can judge of their accuracy. One thing in regard thereto is certain, viz: that the value of personal property in this State fully equals that of the real estate.

Much valuable information on this subject might be gathered through the insurance department if all companies were compelled to so classify their returns as to show how much was insured on buildings, boats or vessels, on cargo, on merchandise in building, on grain, or generally on vegetable and animal products. Then again to classify the buildings so as to show for what purpose they were occupied.

With comparatively small labor a vast amount of statistical detail could be gathered of great use in regard to personal property.

The facility wherewith this species of property may be concealed from the assessor, requires the detail of all kinds of business to be more minute than in regard to real estate, to avoid undue inquisition into the private financial condition of the tax-payer on the one hand, or an undue leniency on the other.

By means of a proper system of detail in making the assessment, personal property can be reached and made to bear its share of the burdens of taxation.

It is important to call the attention of the Legislature to the serious results which are likely to follow from allowing the stocks and other evidences of debt against the United States, to escape taxation for the support of the State government, and of the locality where held.

Of the taxable property of the State, not one-fifth of the personal property is now reached; while the real estate is assessed upon eleven-twentieths of its value, personal is on less than four-twentieths.

But if the claim now set forth by the holders of the securities for money loaned the general government be allowed, then nearly or quite all the personal property in this State will escape taxation, and real estate be made to bear the additional burthen.

Whilst it is conceded that the State cannot tax the *property* of the United States within its territory; yet it is difficult to understand upon what principle the securities for money loaned to the government should escape taxation on that account.

If the evidences of a debtor's liability, after being negotiated, be yet his property, it overturns the notions and practice of centuries, and confounds all previous ideas upon the subject of ownership.

But if the stocks or bonds of the general government be the property of the holder and in the same category as the obligations of individuals or corporations in the owner's hands, then it is manifestly unjust to allow them to escape taxation.

One-half of all the taxes collected in this State, are for the purpose of protecting personal property, and the mean and sordid spirit that seeks to compel others to pay the taxes for its benefit, is guilty of a theft, the more unpardonable because it can only be accomplished by perjury or false representations, that in other cases would consign the perpetrator to the penitentiary.

A case occurred during the past year, in one of our inland cities, which illustrates the absence of morality, so prevalent on this subject, and the facilities furnished for evading taxation of personal property, in a peculiarly forcible manner.

A merchant who openly boasts that he made, during the year, in clear profits from his business, $30,000, has only paid to the State of New York, for all the protection which has been furnished both by city and State, the sum of *fifty cents*, and not even that upon his large stock of merchandise, but upon a *little poodle dog*, which happened to be reached by the dog law.

And this is only one of the thousands of equally glaring cases, though they may not have been reached even by the dog law.

AGRICULTURE.

In the description of the different groups, the peculiarities of the prevailing agriculture are pointed out in each. An inspection of the tables in the appendix to each group, will show the system which has been adopted, and to what extent it is followed.

It will be seen that in most cases the farmers have adopted the system best for their locality.

The surface where winter grain can be grown profitably is much smaller than has been generally supposed. The sixth group is a wheat growing region. The tiers of counties bounding it on the south have more or less land upon their northern margin which will produce winter wheat. But beyond this famed region there is no other section where winter wheat can be grown with certainty or profit. Yet the soil in the second group is a natural wheat soil. Portions also of the third and fourth groups have soil that might bear this cereal; and in the first group it is grown profitably in

many localities, because the straw is more valuable for market than the grain produced.

Still, in all these localities where the cultivation is attempted, other crops would generally pay better for present and certainly for future gain.

Since the census was taken, farming in this state has made a wide stride in the way of an intelligent and profitable system. The last State census was taken after one of the most disastrous years (1844) ever known to the farming interest.

The midge and blight had destroyed the wheat, especially winter wheat, to such an extent that in many localities which had exported large surplus annually, the farmers were compelled to find their bread in the wheat brought from beyond the State. The continued ravages of the midge forced the adoption of a more judicious system of farming in the wheat group. Less wheat was sown, more animals were kept, and the beneficial results of the change began to be manifest five years ago, and have continually augmented.

In a tour of the State, made in the year 1859, more manure was seen carted upon the land in this region than had ever been seen before, and an annual inspection has shown each year an increase of the manure applied, until it is a safe estimate that five times as much manure is now applied to the land as there was in 1855, and that the amount is annually increasing.

The result is manifested in the increased production not only of wheat, but of all other vegetable products of the farm as well as a very large increase of the animal products, amounting in the aggregate to more than tribble the product before the advent of the midge. The average of nearly or all farm products, in a favorable season, would show a gain of fully fifty per cent. over that of 1854.

Outside of the 1st, 2d and 6th groups the general tendency of agriculture is in the direction of animal produce over vegetable, and as a result the agriculture of those districts is becoming annually richer, by so much as the farmers conserve their manurial resources. The permanent productive power of the land is to be estimated by the magnitude of the manure crops annually made and applied. In the dairy districts of the 3d, 4th and 5th groups the farmers are beginning to realize this fact. Though they progress slowly as yet in the knowledge of the best modes of application, they are very much in advance of the farmers of the grain districts in husbanding their manure. They are also beginning to learn the important fact for them that the less land plowed the better. That the plow should only be resorted to for the purpose of increasing their grass crops. They are beginning steadily to comprehend that great axiom in agriculture—the more grass the more cattle—the more cattle the more grass.

It has been shown how ample are the markets and the facilities for reaching them. It only remains for the farmer to study the wants of those markets, and to adapt their surplus to meet those demands. It should be his study to ascertain: 1. What produce brings the highest price relatively to its cost of production. 2. By what means the cost of production to be reduced in order to increase the net profit? The result of his investigations on the first subject will be the abandonment of those crops and that system

which, in a given situation, are not profitable, and bestowing his attention upon those only which pay the best. The second will lead him to the discovery and adoption of methods for economizing labor, thereby rendering it more productive.

Our farmers should remember that there is only one law which admits of no exceptions, and which everywhere produces the same results, that is the law of markets. Upon the due comprehension of this fact will depend their prosperity, the value of their land, and the accumulation of their personal property.

It should be remembered, however, that there is a keen competition with the farmers of other States for the supplying of many of these markets, and that our farmers should study to supply only those articles wherein there can be the least competition. The largest competition comes from the vegetable rather than animal products, as may be inferred from the fact that while all kinds of vegetable products have risen but little in value during the last twenty years, animal products have doubled, and in many instances quadrupled in that time, and are still increasing in ratio as population increases. In the three great products of the dairy, milk, butter and cheese, competition with the farmers of other States has had no visible effect upon prices, nor is there any prospect, for all time to come, that these articles will not command remunerating prices, whatever may be the quantity produced by people of other States.

Sheep and wool form also a profitable branch of farming in the grain growing regions of the State, and the numbers kept to the acre in the 6th group, shows that sheep and wool are among the staple products of the farm in the grain growing region.

But the time has come when the farmers of this State, in nearly every section, must resort to the improvement of their farms by under-draining, by a careful system of manuring, and by a greater attention to the production of fodder crops, and the careful feeding of their animals, if they wish to set at defiance the prodigal farming upon the virgin soils of the west. They must avail themselves of all the advantages of their position, and properly use a soil which, as a general rule, is able to repay with abundant profit all the care which an intelligent system of farming can bestow upon it.

A Spartan youth complained to his mother that his sword was too short. "Add a step to it, my son," said the matron. Probably if she lived now the same spirit would not advise him to sell out and go west, or abandon his badly tilled lands for the village or city, to avoid the effects of a keen competition for the great markets that are almost at his door.

She would bid her son to overcome competition by a more skillful use of the means which he possessed, and seek to make two blades of grass grow where only one grew before; a feat which is being accomplished in many localities of the State with great profit to successful cultivators. What man has done man may do. There is plenty of good farms in this State that only lack the intelligent cultivation of the owners to become more valuable than the gold mine of far off regions. The fault is not so much in the soil as in the owner.

The cultivation of a greater range of crops is advised in all localities. In the dairy region, flax can be made a very profitable crop, especially if the seed be consumed upon the farm by the stock, and the manure thereby vastly improved in its value. Roots, especially the sugar beet, could also be much more cultivated than at present with manifest profit to the dairyman as well as to the grain grower.

There is nearly or quite 100,000 acres of land in the State adapted to the successful cultivation of the grape. In the sixth group, around all the inland lakes, and along the borders of Lake Erie and Lake Ontario, there can be a succession of vineyards. In the 1st, 2nd, and 3rd groups, there are many places where the grape can also be profitably grown. And at no distant day it will be in the power of the farmers to add to their aggregate vegetable products a sum equal to that of all their wheat crop from the vineyard alone.

The money which the Legislature annually appropriate to agriculture has been the means of increasing the property of this State by hundreds ofmillions of dollars, and a moderate increase of those annual appropriations will still largely increase those values.

ATLANTIC GROUP 1.

Stonington

Fishers Island

Gull Gull

rdiners Island

Montauk Pt

Unionville

Yonkers

WHITE PLAINS

Scarsdale

Rye

Mamaroneck

New Rochelle

Throgs Neck

Flushing

Newtown

Williamsburgh

Brooklyn

Jamaica

Hempstead

Rockaway Beach

Coney I.

Sandy Hook

NEWARK

NEW YORK

JERSEY CITY

Elizabethport RAILWAY

RICHMOND

Staten Isl.

KINGS

QUEENS

NEW YORK BAY

Perth Amboy

Matteawan

AN

Comstock & Cassidy, Albany N.Y.

CHAPTER V.

GROUP I: Counties—Islands—Surface—Bays furnish Facilities—Counties Described—Kings, New York, Queens, Richmond, Suffolk—Area—Population—Classed—Density of Population—Unimproved Land yet to be Improved—Valuations—Farms—Tools—Stock—Routes of Traffic—Aggregate Valuations—Distribution of Land—Crops—Vegetable Products—Value—Animals—Proportion—Lands Profitable as Market Gardens—Animal Products—Value—Appendix—Statistics—Agricultural—Financial Population and Assessed Values.

GROUP I.

Counties: Kings, city and county of New York, Queens, Richmond and Suffolk must be described separate.

The island of Manhattan embraces the whole of the city and county of New York. Its area is about 14,000 acres. Some portions of the upper end of the island is yet cultivated in market gardens, though the whole island has been mapped into city lots and streets, and it cannot be regarded as in anywise an agricultural county.

Staten Island is embraced in the county of Richmond. Its area is put down in the report of its supervisors at 30,233. The general surface is rocky and hilly. A portion of the south and west side is level, and where not too wet furnishes excellent farming land. Its proximity to New York will ensure it a surplus of the population of that city, and along the navigable water which surrounds it is springing manufactories that are becoming daily more important. Its value does not consist in the agricultural capacity of its soil, but in its peculiar adaptability for furnishing sites for manufacturing establishments; and its heights, overlooking the bay and city, furnishing building spots for the summer villas of the wealthy citizens of New York.

Long Island includes within its boundaries three counties, viz: Kings, Queens and Suffolk; its whole area is about 630,000 acres. Its surface is generally level, except on the north side, where it rises into moderate ridges, and may be called hilly; the soil, over the most part, is a sandy loam. On the north side, and among the hills, a clay occasionally abounds. East of Queens county and throughout Suffolk the surface is largely covered with a scrub oak and pine forest, which is of little value for timber; and when cleared off leaves stumps that are eradicated with difficulty before the soil can be properly cultivated. The soil is warm and quick, and admirably calculated for what it must ultimately become—the market garden for a great city. The products of agriculture are remunerating, and though the soil requires frequent and heavy manuring, yet there is no portion of the State where high farming pays as well as here. The soil is cultivated with less labor than anywhere else in the State, the climate milder, and the farmer finds a profitable market for all his products.

The innumerable bays and creeks which indent its shores furnish excellent fishing grounds; and it is estimated by intelligent residents that the sea furnishes an income fully equal to the land.

The surplus population of New York is rapidly flowing out upon the island, and filling it with a suburban or village population.

Kings county can no longer be considered as an agricultural county,

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being almost entirely occupied by a city, or urban and suburban population. The north and west portions of Queens county are in the same condition, and a large portion of the whole county is rapidly becoming only a market garden and a succession of villages.

The public works upon the island are the Long Island railroad, running nearly the entire length of the island. That, together with its bays and creeks, furnish unequaled facilities for obtaining manure at cheap rate, as well as for a rapid transit of its products. There are few if any places that are five miles from either a railroad station or a steamboat or sloop landing, while the majority of farms would not equal three miles from these places.

In its agriculture the island will never do much towards supporting the population now filling its western end and swarming along its shores and railroads towards its interior.

The following is a brief description of the several counties with regard to their future valuations :

Kings County.

Kings county is bounded east by the county of Queens, south by the Atlantic ocean, west by the bay of New York, and north by the East river.

It can hardly be termed an agricultural county, as its available surface is occupied for city or village purposes, or as a market garden. It derives its principal value from this cause, and in a very few years will be occupied by only an urban population.

As a city, Brooklyn cannot be regarded in a commercial point of view, other than as second to New York. Its real estate must therefore be regarded as much less valuable, and will not as a whole, exceed one-quarter the value of similar lots and improvements in the latter city. Its relative value, as fixed the current year, in the opinion of one of the State Assessors, is too high as compared with that of New York. Still, as New York thrives, so must Brooklyn, and its valuation should be annually revised.

The City of New York.

The city embraces the whole island upon which it is situated, and is bounded on the north by the Harlem river, on the east by the East river, on the south by the bay, and on the west by the North river.

As to the great commercial emporium of not only the State, but of the whole continent, the floating capital of the State and of the Union, seeks for investment at this point. Capital that could be employed to advantage in improving the manufacturing facilities which the immense hydraulic power of the State furnishes—or to a more thorough cultivation of the soil, and to its improvement by a higher state of farming, is, by reason of the inducements which commerce holds out for larger gains, withdrawn from the country and concentrated here. Its population and valuations are largely increased each year, and such is the demand at all times for permanent investments, real estate can be forced upon the market and sold with but a small discount from its estimated value. Such is not the case in the country or among the farmers and farms of the State. For that man must be truly fortunate who at a forced sale of his real estate can realize one-fourth of its estimated value.

Therefore, while in the aggregate the valuations of the city appear large, yet, if judged by the convertibility of the property, they are not proportionally higher than the farm lands of the State.

The estimate of $5,200 per lot, for all the taxed lots of the city, is under rather than over the value fixed by some of the best judges of the value of real estate in the city. The value of the real estate, if regard be had to the rental, will be found to exceed $1,000,000,000. But as the value of city real estate is affected by the condition of the country, and fluctuates more rapidly than farm or agricultural lands, the aggregate value is perhaps the safe one for a present basis of taxation.

Queens County.

Queens county is bounded on the east by Suffolk county, south by the Atlantic ocean, west by the county of Kings and north by the East river.

The surface is generally level, except on the north side it becomes rolling and hilly. The soil is a sandy loam or gravelly clay loam, and admirably calculated for profitable farming, near a large market. The Long Island railroad through the centre, and the bays and harbors on each side furnish abundant means for a profitable development of its resources. It is becoming rapidly populated, and when the vacant lands around Hempstead are brought into market, the population and wealth will be rapidly increased. It has no commercial or manufacturing centre of importance, but its proximity to the cities of New York and Brooklyn will soon make it nearly, or quite a suburb of those cities, and its population will soon become suburban. Its increase of wealth and population must bs such as to require an annual revision of its valuations.

Richmond County.

Richmond county embraces the whole of Staten Island. Its surface is rocky and hilly, or flat and more or less marshy. As an agricultural county it has small capacity as compared with its surface, and but for its proximity to the city of New York, would be among the least valuable of the second class counties. It has no particular advantages for manufacturing, over the opposite shore of Long Island, and will not populate as rapidly. Yet, such resources as it does possess are being developed, and considerable manufacturing is carried on at different points along its shores. Its greatest value consists in the advantageous position of its hills and high lands for suburban residences and villas. It will increase in population and wealth much slower than other points around the city, which are reached by less water conveyance. Its valuations will require a revision once in two years.

Suffolk County.

Suffolk county is bounded on the west by the county of Queens, on the north and east by Long Island sound, and on the south by the Atlantic ocean.

The surface is broken and hilly, especially in the centre, but along the shores of the bays is level. The soil is generally a sandy loam, which possesses great capacity for profitable cultivation, as little or no part of

the county is situated more than six miles from either a railroad or an accessible harbor, so that manures can be cheaply transported by water, and the products of the farm or garden rapidly carried to an ever open market. Much of the bad repute in which Long Island lands have fallen, especially in this county, is due more to the want of enterprise of the inhabitants of the county, and to the absence of capital in the cultivation of the land. But capital properly applied will nowhere reap a greater return in farming and gardening, than here. The great facilities furnished by the fisheries along its shores, and the rich rewards received therefrom, discourage the improvements of the land as rapidly as would be expected from their peculiar location.

The large fires which caused the destruction of so much property in the timber lands of the county, were taken into consideration by the assessors in fixing the valuations upon the farm lands.

The county is gradually improving and will increase slowly in its population and wealth, but its valuations will require a revision not oftener than once in three or four years.

Area, Population, Agricultural Valuations, Commercial Routes of Traffic.

AREA.

This group is 2.1-10 per cent. of the whole State, and embraces an area of 1,011 square miles, whereof there are—

Improved	493 square miles.
Unimproved	518 do

The proportion is:

Improved	48 per cent.
Unimproved	52 do

Reduced to acres at the rate of 640 to the square mile and there are:

Improved acres	313,360
Unimproved acres	331,893
Total acres	647,253

The improved is 48 per cent. of the whole area, or the improved to the unimproved is 48 to 52.

The proportion of the improved land in the group to that of the aggregate improved land of the State is 2.02 per cent.

POPULATION.

The aggregate population of the group is:

City	1,080,330
Village	85,951
Rural	52,758
Total population	1,219,039

The proportion of each is:

City population	89 per cent.
Village do	7 do
Rural do	4 do

Thirty-two per cent. of the whole population of the State is in this group.

The high percentage of the city population is to be accounted for by the fact that the cities of New York and Brooklyn are included in this group. The small percentage of the rural population sufficiently indicates the ten-

dency of the urban and suburban to absorb the available territory embraced within the group. Of the 331,893 acres of unimproved land, about one-half or 165,947 acres are susceptible of ultimate improvement, and will be brought to yield human food, but the balance must always contain a waste, and it will only be by slow degrees that these lands will be brought into cultivation. Small as the proportion of the rural population now is, it must decrease rather than increase.

The density of population is—total population to total area, 1,215 to the square mile, or two persons to the acre.

The aggregate population to the aggregate improved land, is 2,473 to the square mile, or 4 persons to the acre.

Of the rural population there are 52 to the square mile, or 12 acres to the inhabitant.

But the aggregate rural population to the square mile of improved land is 107 persons to the mile, or 6 acres to the inhabitant, which gives 36 acres as the average number of improved acres to each farm.

VALUATIONS.

The cash value of farms, stock, tools and implements is:

Farms	$48,229,322
Stock	4,956,005
Tools and implements	1,060,452
Total capital invested in agriculture	$54,245,779

The average value of farms, stock, tools and implements per acre of improved land is:

Farms per acre	$153 00
Stock per acre	15 72
Tools and implements per acre	3 36
	$172 08

The whole average farming capital invested is:

Farm	$5,508 00
Stock	576 00
Tools and implements	121 00
Total invested	$6,205 00

The aggregate value of all the real estate of the group is:

Farm lands	$48,229,322
Village and corporations	13,000,000
City	782,200,000
Total value of real estate	$843,429,322

The incorporated cities are New York and Brooklyn, each of which have numerous elements for progressive increase in population and wealth.

The total number of artificial miles of routes for commercial traffic are, railroad 129 miles, and the proportion of such routes to the square mile of area is 8 square miles of area to 1 mile of traffic route.

The valuation of real estate by the State Assessors, and of personal estate by the town assessors, whereon the report of the board of equalization was based for the years 1862 and 1863, are as follows.

Farm lands	$29,722,339
Village and corporation real estate	13,000,000
City	582,200,000
Total real estate	$624,922,339
Personal estate	195,448,899
Total, real and personal	$820,371,238

The details are tabulated in table B, of the appendix to this group.

The banking capital in 1861 was $73,080,605.

The details are tabulated and shown in table C, of the appendix to this group.

DISTRIBUTION OF IMPROVED LAND.

Pasture, acres	85,458
Meadow, do	81,681
Total in acres, grass	167,139

The percentage of acres in grass to the whole area of improved land is:

Pasture	27 per cent.
Meadow	26 per cent.
Total percentage of grass	53 per cent.

Spring wheat, acres	46
Winter wheat, do	18,531
Oats, do	20,931
Rye, do	19,404
Barley, do	718
Total in white straw crops	59,430
Buckwheat, acres	9,484
Corn, do	25,001
Peas, do	569
Beans, do	3,331
Total in fodder crops	38,385
Potatoes, acres	7,521
Turnips, do	1,403
Total in root crops	8,924
Flax, acres	1
Hops, do	1
Market gardens, acres	4,944
Total in merchantable crops	4,946

Recapitulation.

Total acres in straw crops	59,630
fodder crops	38,385
root crops	8,924
merchantable crops	4,946
Total acres in cultivation, exclusive of pasture and meadow, which is 35 per cent. of the improved land.	111,885

There is yet some 12 per cent. of the improved land unaccounted for, which must be included in vacant lots and towns, and in the errors of the census.

VEGETABLE PRODUCTS AND THEIR VALUE.

Hay, tons	106,275 at $10	$1,062,750
Grass seed, bushels	2,450 at 2	4,900
Total value of grass products		$1,067,650

Spring wheat, bushels	752	at $1 25	$940
Winter do	283,140	at 1 25	353,925
Oats, do	489,690	at 30	146,907
Rye, do	225,778	at 80	180,622
Barley, do	14,370	at 80	11,446
Buckwheat, do	41,640	at 50	20,830
Corn, do	940,848	at 75	705,636
Peas, do	12,794	at 80	10,235
Beans, do	8,000	at 80	6,400
Total grain products	2,017,012		$1,436,941
Potatoes, bushels	692,925	at $ 75	$519,743
Turnips, do	226,269	at 50	113,135
Total roots	919,194		$632,878
Flax seed, bushels	1	at $2 00	$2
Lint, pounds	300	at 10	30
Hops, do	304	at 10	30
Apples, bushels	31,228	at 25	7,807
Cider, barrels	456	at 1 00	456
Market gardens, value of products	697,088		697,088
Total value of merchantable crops			$705,413

Recapitulation.

Value of meadow products	$1,067,650
do grain do	1,436,941
do roots do	632,878
do merchantable products	705,413
Total value of vegetable products	$3,842,882

The average annual value of the vegetable products, exclusive of straw, on improved land, is, exclusive of pasture, equal to $17. The aggregate annual grain product is six bushels per acre.

ANIMALS AND VALUE OF THE PRODUCTS.

Neat cattle—whole number		47,318
Under one year	6,225	
Over one year, exclusive of working oxen and cows	11,905	
Oxen	4,373	
Cows	24,815	
Horses	28,369	28,369
Mules	567	567
Killed for beef	53,409	
Sheep	37,780	
Sheep shorn	30,300	
Reducing sheep to a cattle equivalent, at seven to one, and they equal cattle,		5,397
Whole number of cattle or their equivalent		81,651

The aggregate of improved land to cattle is four acres to one. But this group is not to be compared with the other groups in its agricultural products. Large numbers of cows are kept in the cities of Brooklyn and New York, that are stabled during the year; and others are kept in the suburbs of each city, and the grain and hay to support them comes from other localities. The large proportion of horses to cattle is also owing to the fact that all the horses used in the two cities are included in this census, and no distinction made between horses on the farm, or for farm labor, or those kept exclusive for the road.

This whole group is a cattle, sheep, hog and horse importing group, with small exceptions, in regard to Suffolk and a portion of Queens counties.

Therefore, the rules whereby we are to judge of the agricultural prosperity of the people, must be different from those applied to a more rural population.

The lands can be most profitably occupied as market gardens, and all its agriculture tends to that direction, and will be profitable, as it assimilates that condition.

Heavy manuring, and at large expense, requires crops that will pay largely for their cultivation. As a general rule the farms in this group are prosperous, but not so by adopting any system that would be found feasible or profitable in either of the other groups. Few animals are kept which do not yield an immediate profit either in labor or produce.

The supply of manure is principally from the town, and that is paid for by the vegetables it stimulates the soil to produce, and animals are only kept to consume the offal of the farm which cannot be sold in the city.

Farming, as understood and practiced in other portions of the State, would be an unprofitable occupation here.

The surplus from the land in this group is principally in vegetables and milk for the inhabitants, and forage and bedding for the stables.

Swine under six months	11,085
Swine over six months	15,581
Total swine	26,666

ANIMAL PRODUCTS AND THEIR VALUE.

Wool, lbs	89,040	at 40c.	$35,616
Butter, lbs	1,118,178	at 20c.	223,636
Cheese, lbs	2,345	at 10c.	234
Milk sold, galls	3,681,055	at 10c.	368,103
Value of poultry sold	$116,124		
Value of eggs sold	108,830		
Total value of poultry			$224,954
Total value of animal products			$852,543
To this sum should be added the value of swine over 6 months, which represents the surplus 15,581, at $12			186,962
One-half of cattle over 1 year old, 5,953 head			119,060
One-third of sheep 12,593, at $3			37,779
Of the horses kept in this group there are in the counties of Queens, Richmond, and Suffolk, 15,910 head. Of these perhaps one in twenty is sold annually—say 795 head at $30			23,850
Total value of animal surplus			$1,220,194
To this should be added the surplus derived from hay, straw, wheat—indeed, nearly or quite all their vegetable products are sold.			
Total value of vegetable produce			3,842,882
Add for straw			500,000
Total value of surplus products of agriculture			$5,563,076

Or $17.65 per acre for the improved land of the groups, or an average annual income to the farm of $635.40, which is not far from ten per cent upon the capital invested.

But as the expense of cultivation is much greater here than upon a different soil and farther inland, the annual income of the farms does not much if any exceed that of the average of the farmers of the State.

It is the opinion of well-informed persons living upon the island that the income from the waters around them furnish an annual revenue equal to if not superior to that from the land, at any rate a very large item of the animal food of the inhabitants is drawn from this source.

Group I.

Agricultural Statistics from State Census of 1855.

ISLAND COUNTIES.	Acres.		Cash Value.			Acres in pasture.
	Improved.	Unimproved.	Of farms.	Of stock.	Tools & implem'ts.	
Kings	15,871	5,594	$8,468,600	$762,770	$117,343	1,541
New York	1,050	923	4,324,700	1,495,212	11,395	246
Queens	119,549	57,204	17,071,845	1,253,350	512,392	24,229
Richmond	15,072	7,602	5,261,350	173,025	74,936	3,006
Suffolk	163,818	260,570	13,102,827	1,271,648	344,386	56,436
Totals	315,360	331,893	$48,229,322	$4,956,005	$1,070,452	85,458

A.

COUNTIES.	Meadow.			Spring Wheat.		Winter Wheat.		Oats.		Rye.		Barley.	
	Acres.	Tons of hay.	Bush. of grass seed.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.
Kings	3,863	6,183	6	....	.....	887	18,086	418	11,679	254	4,860	....	.....
New York	101	157	.....	....	.....	2	30	19	435	2	25	....	.....
Queens	37,634	57,395	624	4	48	6,877	102,169	9,426	199,518	6,136	71,019	180	2,769
Richmond	4,528	7,032	79	26	575	792	11,335	741	15,991	204	3,131	26	627
Suffolk	31,555	41,505	1,741	16	129	9,973	151,520	10,317	262,067	5,285	52,212	512	10,974
Total	77,381	112,272	2,450	46	752	18,531	283,140	21,021	489,690	11,881	131,247	718	14,370

A.—Continued.

COUNTIES.	BUCKWHEAT.		CORN.		POTATOES.		PEAS.		BEANS.	
	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.
Kings	21	235	1,948	54,179	3,089	368,243	174	16,930	66	7,042
New York	.....	.....	31	1,180	28	1,808	3	250	8	645
Queens	6,299	21,224	13,852	337,685	4,089	291,135	383	33,444	203	22,282
Richmond	79	1,325	1,555	43,037	315	21,739	7	410	1	166
Suffolk	3,085	18,856	17,615	504,767	3,403	304,063	2	142	55	1,382
Total	9,484	41,640	35,001	940,848	10,924	986,988	569	51,176	333	31,517

A.—Continued.

COUNTIES.	TURNIPS.		FLAX.			HOPS.		APPLE ORCHARDS.		MARKET GARDENS.	
	Acres sown.	Bushels harvested.	Acres sown.	Pounds of lint.	Bushels of seed.	Acres planted.	Pounds harvested.	Bushels of apples.	Barrels of cider.	Acres cultivated.	Value of products.
Kings	212	31,001	....	....	....	....	....	54	.....	1,414	$273,552
New York	27	2,060	....	....	....	....	....	.....	.....	157	66,000
Queens	562	84,544	1	300	1	....	....	3,346	29	3,186	337,503
Richmond	39	4,481	....	....	....	....	....	28	.....	162	16,740
Suffolk	563	104,183	....	....	....	1	304	27,800	427	25	3,293
Total	1,403	226,269	1	300	1	1	304	31,228	456	4,944	$697,088

A.—Continued.

COUNTIES.	Neat Cattle.						Pounds of butter.	Pounds of cheese.	Gallons of milk sold.	No. of horses.
	Total.	Under 1 year.	Over 1 year ex'ive of oxen & cows.	Oxen.	Cows.	Number killed.				
Kings	3,204	160	169	41	2,834	5,500	17,425	.....	3,033,290	6,314
New York	3,323	4	2,600	.....	719	44,405	.....	.....	2,400	14,099
Queens	14,326	1,437	1,723	1,926	9,240	1,164	441,983	765	566,320	7,954
Richmond	2,250	302	359	400	1,189	102	24,365	.....	34,905	845
Suffolk	24,215	4,322	7,054	2,006	10,833	2,238	634,405	1,580	44,120	7,111
Total	47,318	6,225	11,905	4,373	24,815	53,409	1,118,178	2,345	3,681,035	36,323

A.—Continued.

COUNTIES.	Mules.	Swine.		Sheep.			Poultry.		Ashes.	
		Under 6 months.	Over 6 months.	No. of sheep.	No. of fleeces shorn.	Pounds of wool.	Value of poultry.	Value of eggs.	Bushels.	Value.
Kings	122	1,218	2,746	2	2	7	$1,183	$2,071	1,730	$173
New York	256	178	1,071	.....	.....	.....	.....	.....	.....	.....
Queens	178	6,723	7,505	9,714	7,084	20,592	69,114	45,095	.....	.....
Richmond	26	663	1,063	57	38	160	2,427	6,452	.....	.....
Suffolk	163	9,026	10,701	28,016	23,178	68,281	43,400	55,242	50,632	7,839
Total	745	17,808	23,086	37,789	30,302	89,040	$116,124	$108,830	52,362	$8,012

TABLE B.

Digest of Facts by State Assessors for Board of Equalization.

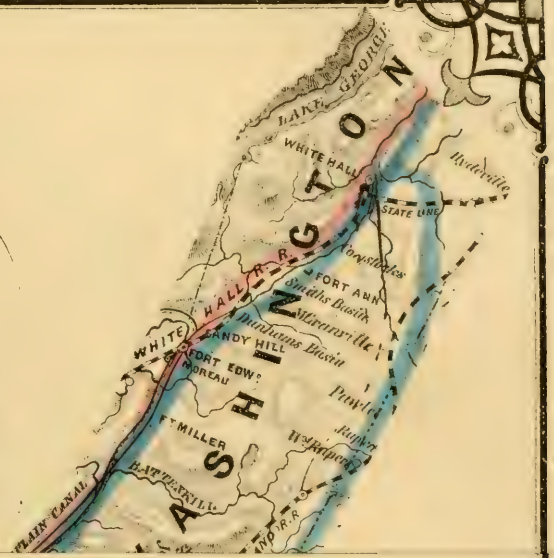
COUNTIES.	Whole number of acres taxed as returned by supervisors.	Price of farm lands per acre.	Aggregate valuation of farm lands.	State Assessors' valuation of real estate in villages and of corporations.	State Assessors' valuation of the real estate of cities.	Ag'gate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate for 1861.
Kings	18,740	$220 00	$4,822,800	$3,000,000	$96,200,000	$104,022,800	$12,646,100
New York	13,920	.....	.....	.....	486,000,000	486,000,000	174,624,306
Queens	180,637	80 00	14,454,960	6,000,000	.....	20,454,960	5,223,418
Richmond	30,233	110 00	3,322,230	3,000,000	.....	6,322,230	887,700
Suffolk	418,967	17 00	7,122,349	1,000,000	.....	8,112,439	2,067,275
Total	662,467	.....	$29,722,339	$13,000,000	$582,200,000	$624,912,429	$195,448,899

C.

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital; also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, Oct. 1, 1861.	Local assessors' valuation of real estate, as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal estate, as returned by the supervisors, 1861.	Rate per capita of personal estate over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, 1861.
Kings	279,122	$3,310,000	$98,509,244	$12	$45	$33	$288	$353
New York	813,669	69,650,605	406,882,790	85	215	130	460	500
Queens	57,391	.....	15,874,950	....	92	92	226	259
Richmond	25,492	.....	6,025,558	....	35	35	194	236
Suffolk	43,275	120,000	8,854,957	3	48	45	146	205
Total	1,218,949	$73,080,605	$536,147,489	....	....	....	....	....

Eastern Counties



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CHAPTER VI.

Group II: Counties—Boundaries—Topography—Scenery—Wealthy Men Seeking Homes—Suburb of New York—Mineral Resources—Counties Described—Columbia, Dutchess, Putnam, Rensselaer, Washington, Westchester—Area—Population—Aggregate Valuations—Value of Farms per Acre—Average Capital in Farms—Miles of Traffic Routes—Distribution of Land—In Grass—In Tillage—Quantity of Crops—Value—Straw—Once Wheat Land—Not Now—Crops not what should be—Rye staple Crop—Potatoes—Flax leading Crop—Animals—Do Products—Value—Surplus Vegetable Products—Value—Proportion—Cattle—Agriculture—Affect by Markets—General System Bad—Traffic Routes to Square Miles—Appendix—Agricultural Statistics—Tax Values—Financial.

GROUP II

Counties: Columbia, Dutchess, Putnam, Rensselaer, Washington, Westchester—6.

This group embraces all the territory of the eastern part of the State which bounds upon the States of Connecticut, Massachusetts and Vermont, and extends from the Hudson river at the south to near the junction of lake George and lake Champlain in the north, and is bounded on the west nearly the whole distance by the Hudson river. It is not far from 175 miles long by twenty-five broad.

It has mountains on the east nearly the whole distance, embracing the Taghkanic range, while it has the highlands and parts of the mountains of the Catskill group, extending across from east to west. In its topography it may be termed a broken and hilly region, at many points running into a mountain tract, susceptible of pasturage and broken cultivation over nearly the whole surface.

Along the Hudson river the shores are usually rocky bluffs, sloping inland, but a small portion of the surface can be considered level; yet a large surface is capable of cultivation. The counties are similar in their soil and topography, and are properly embraced in one group, as they have no portion of the State wherewith they properly assimilate.

The scenery is excelled in no country for its grandeur, beauty and great variety. The mountains of the other groups, adjoining it to the west, which are ever visible from its hills and plains; its own mountains always beautiful in their outline, and often assuming proportions of magnificence in their aggregate massing; a river unsurpassed for the beauty of the views it presents in its ever changing scenery; an interior diversified by hill and dale, embracing at almost every turn landscapes unrivalled for their richness and beautiful variety. These are its natural charms; but art is everywhere busy in adding to them by the softening influence of wealth and cultivated taste. The rocky headlands which so abundantly mark the course of the river, and give such grand views of river and mountain, of lake and hill and dale, are fast becoming the sites for princely mansions, surrounded with all the acquired beauty that unbounded wealth can supply.

The wealthy business men of New York are preparing their future homes in this beautiful region, away from the noise and bustle of active city life, and seeking amid its sylvan scenes for that enjoyment of their declining years, which ever comes to the human heart in the contemplation of the

Eastern Counties

GROUP 2.

Comstock & Cassidy, Albany N.Y.

grand and beautiful, nowhere so blended by a wise and beneficent creator as in the length and breadth of this group. It seems to one who has traversed this region often, and contemplated it in its relations to the vast city which lies below and yet in its infancy, as wisely designed for an adjacent suburban territory, whereon might be lavished the wealth and taste of a great metropolis.

Wealth and taste are already beautifying the scenery all along the headlands and bluffs of the river's bank, and in sequestered dells and vales; and it is not extravagant to anticipate that the whole country will be a succession of villas far up the river to Troy, and even beyond.

The scenery has been dwelt upon, perhaps, to a degree scarcely warranted in a report like this, for the purpose of calling the attention of the people of a great city to the unexampled advantages which they possess, almost at their doors, for the enjoyment of a healthful, and, at the same time a beautiful country residence.

All below White Plains, in Westchester county, is now little else than a suburb of the city of New York—maintaining much the same relation to the city that Harlem did a few years ago. Its manufacturing facilities are immense, and its mineral resources inexhaustible. The iron mines of the Taghkanic range furnish ore for manufacturing the choicest iron, and its mountains abound with marble of desirable quality, while some of the most beautiful granites for buildings are found in inexhaustible quantities near its great thoroughfares. The facility for cheap fuel in the exhaustless supply of coal from Pennsylvania, through the Hudson and Delaware canal, adds largely to its manufacturing resources.

The soil possesses, in the mineral constituents of its prevailing rocks, the elements of inexhaustible fertility. The unrivalled fertility and richness of its pastures is owing to the constant supply of alkaline substances furnished by the disintegration of the rocks scattered upon the surface, or washed down from the mountains by the torrent or the rill.

There is but very little of the surface that does not afford a profit to the owner, and although one-fourth is uncultivated, yet it by no means follows that the greatest portion of the uncultivated is a waste, because the broken and rough hills furnish periodical crops of timber, and annual pasturage on nearly their whole surface. The absolute waste and worthless land will not exceed one twentieth of its whole area.

BRIEF DESCRIPTION OF COUNTIES WITH REFERENCE TO THEIR PRESENT AND FUTURE VALUATION.

Columbia County.

The county of Columbia is bounded on the north by the county of Rensselaer, on the east by the State line, on the south by the county of Dutchess, and on the west by the Hudson river.

The general aspect of the county is hilly, and more or less broken. Few counties have a greater variety of soil over its whole surface. From the most fertile to the most rocky and sterile, can often be found upon the same farm, and that not covering a very large surface.

Its avenues for commercial intercourse, and its facilities for reaching

valuable markets at cheap rates, and by rapid modes of transit, are second to no other county. There are railroads over various portions of its lands, with the Hudson river in its front.

There is valuable hydraulic power in the county, already extensively occupied; and it is now a manufacturing centre of importance, and the general productions of its soil, and the improvements of its motive power renders it, by reason of its other facilities, among the most important counties of the State, whose population and wealth are rapidly increasing and whose valuations will require an annual revision.

Dutchess County.

The county of Dutchess is bounded on the north by the county of Columbia, on the east by the State line, on the south by the county of Putnam, and on the west by the Hudson river.

The general aspect is hilly, rolling, and more or less broken. The soil is various, and ranges from very fertile to rocky and sterile. Generally it is capable of being used for permanent pasture, when too broken for tillage, so that there is comparatively only a small portion which cannot, in some respect, be made to yield an income.

It has important hydraulic power which is extensively employed, and it has already become an important manufacturing centre of textile fabric, as well as mineral products.

The Harlem railroad through its eastern towns, and the Hudson river railroad and the Hudson river on the west side, furnish great facilities for the rapid and cheap transportation of its surplus products of field and mine to a never-failing market.

Few counties, therefore, are in as prosperous condition in all its industrial resources, and its population and wealth is rapidly increasing, and its valuations will require annual revision.

Putnam County.

Putnam county is bounded on the west by the Hudson river, on the north by Dutchess county, on the east by the Connecticut State line, and on the south by the county of Westchester.

The surface is mountainous, hilly and broken; as but a small portion is in a condition for cultivation, its general agricultural product must be grass, and it can never be other than a grazing county. On its river front there are some important manufacturing towns, and it contains mineral in its mountains in large supply. The Harlem railroad in its rear, and the Hudson River railroad and river in its front, furnish abundant facilities for the successful development of its resources. Its agricultural population will not increase, except at a slow rate. But its proximity to New York city, and its already large manufacturing capacity, will insure an increase of population and wealth which will require an annual revision of its assessments.

Rensselaer County.

Rensselaer county is bounded on the east by the Massachusetts State line, on the south by Columbia county, on the west by the Hudson river, and on the north by the county of Washington.

Its surface is hilly and broken, even mountainous on the east and is generally undulating. Its soil assimilates to Columbia county, and has the same defects and advantages. It has already become a commercial and manufacturing centre of importance, and it must largely increase in its population and wealth. The Hudson river and its railroads furnish ample facilities for the development of its resources, which will be largely increased by the opening up of the northern wilderness.

Washington County.

Washington county is bounded on the east by the Vermont State line, on the south by Rensselaer county, on the west by a part of the counties of Saratoga and Warren, and part of Lake George.

Its surface is hilly, broken, and undulating. Its soil is from very poor to first quality, and surpassed by none in the State. Like all the counties on the east side of the Hudson river, it possesses lands of great fertility, but so broken up by rocky hills that no large tract of fertile land can be obtained for cultivation. It is however among the very best of the second-class counties, and its peculiar facilities for reaching market by easy and cheap modes of transportation, by means of the railroads traversing its territory and the Hudson river and Champlain canal, render the lands more valuable than those of some of the more fertile, but further inland counties. It will always be a thriving county, and its population and wealth will gradually increase, and its valuations should be revised at least once in two years.

Westchester County.

Westchester county is bounded on the east by the Connecticut State line and part of Long island sound, south by the East river and the Harlem river, west by the Hudson river, and north by the county of Putnam.

Its surface is mountainous, hilly and broken, and more or less covered with rocks and the stony debris of its hills and mountains. The soil whenever cleared from the stone wherewith it is so much mixed, is moderately fertile, and particularly adapted to grass and many of the spring grains.

It is not, however, in the richness of its soil that the value of its real estate consists, but in the facility whereby the surplus population of a great city, can make upon its unrivalled sites their suburban residences. All that portion of the county below White Plains on the eastern side, and below the county line on the western side, has already become a suburb of the city of New York, and can no longer be valued as farming lands, but should be rated as village real estate, and is among the most valuable in the State. The Harlem and the Hudson railroads, as well as the Hudson river and Long Island sound, furnish ample facilities for developing its resources and for populating its lands. Its population and wealth will increase rapidly, and its valuations will require an annual revision.

Area, Population, Agricultural Valuations, Routes of Traffic and Banking Capital.

Area.

This group is eight per cent of the surface of the whole State, and embraces an area of 3,399 square miles, whereof there are,

Improved	2,499	square miles.
Unimproved	900	do
Total square miles	3,399	

The proportion of each is:

Improved	73	per cent.
Unimproved	27	do

Reduced to acres there are:

Improved acres	1,599,329
Unimproved acres	572,465
Total acres	2,171,794

The improved is seventy-three per cent of area, or the improved to the unimproved is as 73 to 27.

The proportion of the improved land in the group, to aggregate improved land in the State, is two per cent, and of unimproved it is 2.5 per cent.

The area of improved land never can be materially increased, and must always maintain the same relative position to the unimproved that it does now. There are no extensive tracts of forests or swamps to be cleared or reclaimed; hence there will be no perceptible increase of improved land, because the exigencies of an increasing city or village population will absorb quite as much as may be reclaimed from marshes and swamps which are now being improved.

POPULATION.

Aggregate population of group is:

Village	175,136
Rural	121,560
City	61,148
Total population	357,844

The proportion of each is:

Village	48	per cent.
Rural	33	do
City	19	do
	100	

The excess of city and village population—equal to 67 per cent, indicates the tendency to concentration into large towns or around manufacturing centres, and that the consumers largely exceed the producers, so far as agriculture is concerned.

The proportion of population of group to aggregate population of State, is nine per cent, and of rural population three per cent.

The average population to aggregate square miles, is 105 persons per square mile. The gross population to improved square miles, is 143 persons to one square mile. The rural population to the improved land, is 49 persons to the square mile.

VALUATIONS.

Cash value of farms, stock and implements, by State census of 1855, was:

Farms	$113,954,486
Stock	11,505,557
Implements	3,002,984
Total capital invested in agriculture	$128,463,027

The aggregate value of all the real estate is:

City real estate	$15,226,000
Village real estate	32,300,000
Farms	113,954,486
Total real estate	$161,480,486

The incorporated cities are Troy, Hudson and Poughkeepsie; the villages are numerous, and both city and villages possess the elements of increasing population and wealth.

The valuation of real estate by the State Assessors, and of personal, by the town assessors, whereon the report of the board of equalization was based, for the years 1862 and 1863, are as follows:

Farm lands	$107,947,970
Village corporations	32,300,000
City	15,226,000
Total real estate	$155,473,970
Personal	30,685,594
Total, personal and real	$186,159,564

Banking capital employed in 1861 was $8,470,107.

The details of the cash of the above statement are tabulated and shown in tables B and C of the appendix to this group.

The average value of farms, stock and implements, per acre is:

Farms, per acre	$71 00
Stock	7 20
Tools and implements	1 80
	$80 00

The average number of acres of improved land to each farm, is 78.

The whole average capital invested in a farm is:

Farm	$5,538 00
Stock	662 00
Implements	140 00
Total invested	$6,340 00

The total miles of natural and artificial routes of traffic are:

River	152 miles.
Railroads	429 do
Canal	20 do
Total miles	601

The proportion of traffic route to the square mile of area, is 5.5 square miles to 1 mile of route.

DISTRIBUTION OF LAND.

Pasture, acres	636,088
Meadow, acres	381,415
Total in grass, acres	1,017,503

Of the improved land, the pasturage is 40 per cent, being 4 per cent above the average of the whole State. The meadow is 23 per cent, or 1 per cent below the general average. Owing to the hilly condition of the surface, this excess of pasturage is accounted for, as well as the preponderance of meadow and pasturage, which is 63 per cent of the whole improved land. The course of farming also requires the excess of pasturage.

Spring wheat	23,600
Winter wheat	23,095
Oats	151,377
Rye	99,906
Barley	196
Total in white straw crops	278,174
Buckwheat	28,276
Corn	123,632
Potatoes	35,946
Peas	1,504
Beans	1,006
Turnips	1,872
Flax	5,288
Market gardens	1,184
Total acres under plow	476,882

VEGETABLE PRODUCTS.

Quantity and distribution, and value of crops:

Spring wheat, bushels	39,571 at $1 25		$49,464
Winter wheat, do	110,788 at 1 25		138,485
Oats, do	2,797,760 at 30		839,328
Rye, do	1,380,224 at 80		140,418
Barley, do	32,915 at 80		25,332
Buckwheat, do	222,537 at 50		111,269
Corn, do	2,446,894 at 80		1,957,515
Peas, do	17,938 at 80		14,350
Beans, do	13,065 at 2 00		26,120
Total value of grain products			$3,302,285
Turnips, bushels	154,103		$15,410
Potatoes, do	2,179,514		871,806
Total value of roots			$887,216
Flax seed, bushels	42,338		$63,507
Lint, lbs	1,513,885 at $0 10		151,388
Market gardens' product			$75,210
Apples, bushels	834,574 at 10		83,457
Cider, barrels	31,040 at $1 00		31,040
Hay, tons	395,671		3,956,710
Grass seed, bushels	4,998	25	9,996
Total value of vegetable products			$8,571,001
But the straw of the rye, wheat, and oat crop forms an article of commerce, and is calculated to be worth at least $5 per acre of the area sown to white straw crops, which would make the value of straw			1,390,870
Total value of vegetable products			$9,961,871

Which is $11.61 per acre of the land in tillage.

Of the improved land there is only 27 per cent. under the plow annually and in grain crops, while there is 63 per cent. of meadow and pasture. The meadow only falls 4 per cent. below the plowed land.

Nearly 3 per cent. of the land planted to wheat in the State is grown here, yet, at the beginning of the present century, some of the most productive wheat lands in the State were found in the counties of this group. Nor has their fertility been exhausted to such an extent as to prevent the cultivation of this cereal. On the contrary, it could be grown as well now as fifty years ago, so far as the mineral constituents of the soil are concerned. Its neglected cultivation may be traced to two causes. The first is in the depredations of the midge or fly, which has rendered the crop so uncertain that its cultivation ceases to be profitable; and the second is, the

great increase of population, has made a different system of farming more profitable, and therefore more desirable. The soil is so constituted that it must ever remain a first class wheat soil.

The corn crop forms 15 per cent. of the general crop of the State, and 75 per cent. of all the improved lands of the group. The average product per acre is, however, only 20 bushels, being 3 bushels per acre less than the general average. It is in defective cultivation that it is not as much above, for the soil is genial for it.

The precarious nature of winter wheat cultivation is shown in the fact that the average yield was only 5 bushels per acre, while the general State average was 12 bushels. But still much is due to the very defective system of its cultivation.

Of the straw-producing crops, rye forms the most important in their system of farming, though the most exhaustive: for not only is the straw sold from off the farm, but also the grain. It however receives the most care of any crop cultivated, having the benefit of the scanty supply of manure usually saved, and is the most productive in acreable yield. The potash and lime abounding in the soil, makes the cultivation of this grain more productive than it otherwise would be under their exhaustive system of cultivation. Six per cent. of the cultivated land is in rye, and the yield is at the average rate of 14 bushels per acre, or 4 bushels above the general average. This only shows what might be done with other crops if they were properly cultivated, or if their cultivation furnished a profitable return. Over 35 per cent. of the land sown to rye in the whole State is sown here, and over 45 per cent. of all grown is also grown here.

The acres in oats are 9 per cent. of its cultivated land, and 11 per cent. of the general average, and the yield was 18 bushels per acre, being 2 bushels less than the general average.

Barley is not a favorite among the straw crops, from the fact that its straw has little or no value for market. Only nine acres in one thousand of the improved land were devoted to this crop, and the average yield per acre was 17 bushels, being equal to the general average of the State.

Buckwheat was more largely cultivated, the hilly and mountainous surface furnishing much land congenial to this plant. The proportion is ten per cent. of the general average, and the average product is 8 bushels per acre, which is that of the whole State. The same reason given as in the case of barley, for the moderate cultivation of this plant, is, the straw has no market value.

The cultivation of the potato forms an important part of the farming in all the counties of this group, and especially in Washington county, yet the proportion is only 16 per cent. of the general aggregate, while the average yield is sixty bushels per acre, being nine bushels less than the general average, caused by the defective cultivation, as the soil is admirably adapted to the cultivation of the tuber.

ANIMALS AND VALUE OF THEIR PRODUCTS.

Neat cattle total		$189,452
Under 1 year	23,410	
Over 1 year exclusively	40,101	
Working oxen	23,395	
Cows	102,560	

Cattle killed for beef	23,379	
Horses		51,093
Mules		335
Sheep	361,503	
do shorn	314,449	
Reducing sheep to cattle equivalent, and they represent cattle		51,643
Whole number of cattle or their equivalent		$202,523

The aggregate of improved land to cattle is seven acres to one animal, though the general average of the State is one animal to four acres.

Swine under 6 months old	103,438
do over 6 do	55,306
Total swine	158,744

ANIMAL PRODUCTS AND THEIR VALUE.

Wool, lbs	1,035,611	$414,244
Butter, lbs	7,556,184	151,124
Cheese, lbs	1,299,894	129,990
Milk sold, galls	8,104,806	810,480
Poultry, value sold	218,034	
do do eggs sold	258,807	
Total value of products of poultry		476,841
Total value of products of animals		$1,982,679
Add value of swine over 6 months old, as that would represent the surplus, viz., 55,306 at $12 per head		$663,672
The cattle killed for beef, 23,379 at $20 per head		467,580
One-third of the cattle over 1 year old, exclusive of oxen and cows, and those killed for beef, would be 1,333 head at $20		266,660
One-fourth of the whole number of sheep annually sold, which is 90,326 head at $2 per head		80,652
One-twentieth of the horses supposed to be sold annually, 2,555 head at $30		76,650
Total annual value of surplus products of animals		$3,537,893

To this may be added the value of vegetable products, which represent a surplus, viz:

Meadow products in hay	$3,956,700
do grass seed	9,996
do spring wheat	49,464
do winter do	138,135
do barley	25,332
do rye	140,418
do beans	26,120
do flax and lint	214,895
Market gardens' value of products	75,210
Orchard	114,497
Straw	1,390,870
Total value of annual surplus products of agriculture	$9,679,740

This sum is equal to $6.07 per acre of the improved land, and makes the annual average surplus of the farm $473, which is not far from 7½c profit on capital invested.

The proportions which each bear to the aggregate of the same item in the group, or to the whole State, is as follows:

The neat cattle are 8 per cent. of the general aggregate. Of these, those under one year are 12 per cent. of the aggregate of the group, and 3 per cent. below the general aggregate. Of those over one year, exclusive of cows and oxen, there are 21 per cent. or 5 per cent. below the general aggregate. Of the aggregate of cattle in the group, 12 per cent. are working oxen, and the oxen are 16 per cent. of the general aggregate.

And 68 acres of improved land to each ox, or one yoke of oxen to every two farms.

The cows are 54 per cent of the cattle in the group, whilst they are only 9 per cent of general average, they are 4 per cent above the general average.

Horses are 9 per cent. of general average, and mules 15 per cent., and of horses and mules, 1 to each 31 acres of improved land, or a span to each farm. But as a large percentage of horses and mules are kept in the cities and villages, it will not be proper to average them as a span to each farm; a fair average will not exceed one to each farm.

The swine are fifteen per cent. of the general average, but the proportion under six months is largely in excess of the general average, which is only 50 per cent. But here it is 64 per cent., or an excess of 14 per cent., which is readily accounted for by their mode of farming and facilities for marketing.

The sheep are 11 per cent. of the general aggregate, and there is 1 to 4½ acres of land, and as there is 47,054 more sheep than fleeces, there must have been about that number of lambs, which is 13 per cent., or 5 per cent. below the general average. The general average is one sheep to four acres of improved land, so that they fall below that by half an acre.

The cattle killed are only 10 per cent. of general average, one to every 15 of the inhabitants.

Of the animal products, the value of the poultry and eggs sold amount to 19 per cent. of the general average. But of the milk sold, 40 per cent. of the general aggregate is from this group. The butter is only 8 per cent., and the cheese but 3 per cent, while the wool is 11 per cent., averaging 3 3-10ths pounds per sheep, the general average being 3 5-10ths pounds per fleece.

THE AGRICULTURE.

The system of agriculture is modified by their proximity to an inexhaustible market, and unusual facilities for reaching it, as well as by the increasing demands of their local markets.

Along the line of railroads as far up as Columbia county, and for a short distance into that county, the principal feature of farming is furnishing milk fresh to the city of New York. Almost every farm throughout the counties of Westchester, Putnam and Dutchess, situated along the line of either the Hudson river or the Harlem railroads, or within from three to five miles of either road, is, to its full capacity, a milk dairy farm, and the principal product sold from the farm is in the shape of milk. Higher up, and farther inland, the surplus of the farm is either in rye, grain and straw; and where the ground is too rough for cultivation, pasturage and hay, forage and bedding for the New York stables, is a leading object with a large majority of farmers.

The whole system is defective, because it constantly takes from the soil its vegetable product, and returns nothing in its place. Of the productive power of the soil, when properly consumed, abundant evidence exists in those farms where the dairy is made the leading branch. The production of the soil is not surpassed in any other portion of the State. Hay and straw are baled and sent to the city of New York by rail and river transporta-

tion. Rye straw is in large demand at the various paper mills, and it not unfrequently happens that the crop of straw brings a larger price per acre than the grain. In the upper counties, flax and potatoes are largely exported, and throughout the whole group, comparatively little stock of animals is kept, as is shown by the fact that only one head of cattle, or its equivalent, is kept to 7 acres of its improved land, being almost double the land to an animal in the general average of the State.

It has already been shown that no system of agriculture can be permanently profitable when of the aggregate annual products of the farm, the annual animal does not equal or exceed the annual vegetable product.

The prevailing system is one of ultimate exhaustion, because the annual vegetable product is largely in excess of the animal, and will continue to be so until the whole system is changed; nor would the change be productive of less profit to the farmer, but after a short interval, would materially increase his income, by giving him as much hay and straw to sell as he now has, and a yet larger income from his animal produce.

This should be one of the richest and most productive of the several groups.

The average price of its farm lands, and of the stock and implements, shows that it stands second only to the 1st group.

The average size of its farms is owing to the fact of so much of its mountain lands being enclosed; of the tendency to an urban and suburban occupation of its lands.

The great facilities for marketing the surplus, either farm or manufactory, and of intercommunication, are all that could be desired for the highest development of all its resources.

It has one mile of available railroad or river transit for every six square miles of its whole area, or 12 per cent of the whole facilities for the whole State, while its area is only 8 per cent of the aggregate surface of the State.

Group II.

Agricultural Statistics from State Census of 1855.

COUNTIES.	Acres.		Cash Value.			Acres in pasture.
	Improved.	Unimproved.	Of farms.	Of stock.	Tools and impl'ts.	
Columbia	304,277	69,255	$19,130,759	$1,858,418	$620,449	102,259
Dutchess	396,359	98,104	27,463,045	2,880,290	704,355	156,586
Putnam	94,205	44,447	6,148,849	720,037	140,828	42,623
Rensselaer	292,212	101,002	16,656,695	1,935,709	540,448	107,652
Washington	333,030	143,554	15,271,968	2,146,364	458,954	143,078
Westchester	209,146	81,947	29,283,170	1,964,739	537,905	83,890
Total	1,599,229	538,209	$113,954,486	$14,555,557	$3,002,939	636,088

A.

COUNTIES.	Meadow.			Spring Wheat.		Winter Wheat.		Oats.		Rye.		Barley.	
	Acres.	Tons of hay.	Bush. of grass seed.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Columbia	64,305	65,103	626	95	587	4,092	7,972	38,728	543,034	39,864	445,036	251	3,801
Dutchess	83,100	83,878	697	23	250	11,614	54,470	37,586	626,347	20,424	239,063	184	2,818
Putnam	26,191	27,756	50	.....	.....	507	3,550	3,714	66,922	2,112	22,890	....	.....
Rensselaer	68,361	58,557	435	1,265	13,383	692	2,658	29,295	558,377	22,630	299,864	629	12,807
Washington	78,148	69,881	1,429	2,034	23,854	1,968	8,387	31,111	798,321	9,908	121,967	760	12,944
Westchester	64,309	90,496	1,761	183	1,497	4,222	33,759	10,943	204,759	4,968	51,404	130	545
Total	387,414	395,671	4,998	3,600	39,571	23,095	110,788	151,377	2,797,760	99,906	1,180,224	1,954	32,915

A.—Continued.

COUNTIES.	BUCKWHEAT.		CORN.		POTATOES.		PEAS.		BEANS.	
	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.
Columbia	7,900	54,334	26,439	383,339	6,200	259,419	138	1,336	69	739
Dutchess	5,265	43,124	33,008	558,308	3,700	205,500	25	670	37	788
Putnam	1,900	10,718	4,434	119,919	1,198	64,504	3	48	19	210
Rensselaer	5,832	52,821	20,532	393,413	8,317	596,559	108	1,574	425	5,939
Washington	4,544	40,658	25,781	589,678	11,780	767,285	1,227	14,210	444	5,025
Westchester	2,836	20,890	12,838	402,238	4,759	286,249	3	230	12	278
Total	28,286	222,545	123,022	2,446,895	34,854	2,179,516	1,504	18,068	1,006	13,029

A.—Continued.

COUNTIES.	TURNIPS.		FLAX.			HOPS.		APPLE ORCHARDS.		MARKET GARDENS.	
	Acres planted.	Bushels harvested.	Acres sown.	Pounds of lint.	Bushels of seed.	Acres planted.	Pounds harvested.	Bushels of apples.	Barrels of cider.	Acres cultivated.	Value of produce.
Columbia	67	6,545	19	1,128	54	.....	.....	210,342	9,480	98	$5,738
Dutchess	946	58,577	11	557	15	4	3,104	216,593	8,247	158	12,777
Putnam	102	8,488	.....	.....	.....	.....	.....	27,158	814	21	1,046
Rensselaer	87	11,982	2,400	672,780	19,266	3	1,615	131,241	4,364	374	34,665
Washington	50	7,518	2,858	839,420	23,003	.....	.....	189,103	5,809	22	2,110
Westchester	620	60,993	.....	.....	.....	.....	.....	60,137	2,325	511	18,454
Total	1,872	154,103	5,288	1,513,885	42,338	7	4,719	834,574	31,039	1,184	$74,784

A.—Continued.

COUNTIES.	Neat Cattle.						Pounds of butter.	Pounds of cheese.	Gallons of milk sold.	Horses.
	Total.	Under 1 year.	Over 1 year ex. oxen.	Working oxen.	Cows.	Cattle killed.				
Columbia	27,676	3,817	5,658	3,701	14,500	2,375	1,347,428	67,167	492,293	9,103
Dutchess	44,126	4,349	8,930	6,263	24,584	4,259	1,681,595	54,119	1,970,368	10,820
Putnam	15,507	1,748	2,708	3,200	7,851	1,300	493,696	3,475	1,988,010	1,958
Rensselaer	29,601	3,474	6,559	2,704	16,864	7,710	1,291,738	538,492	1,056,305	10,184
Washington	40,410	7,547	12,074	2,100	18,689	2,994	1,625,138	634,491	30,609	11,707
Westchester	33,132	3,435	4,172	5,427	20,078	4,785	1,116,589	2,180	2,696,411	7,332
Total	190,452	24,370	40,101	23,375	102,586	23,373	7,556,184	1,299,894	8,104,806	51,084

A.—Continued.

COUNTIES.	Mules.	Swine.		Sheep.			Poultry.		Gypsum.	
		Under 6 months.	Over 6 months.	No. of sheep.	No. fleeces shorn.	Pounds of wool.	Value of poultry.	Value of eggs sold.	Tons.	Value.
Columbia	211	22,194	10,374	87,549	81,064	263,368	$29,701	$43,831	1,337	$11,837
Dutchess	29	29,074	13,912	73,687	63,191	205,143	65,687	68,913	2,630	19,051
Putnam	1	4,690	2,307	5,804	4,080	14,466	11,900	12,712	616	5,180
Rensselaer	10	15,504	9,503	64,609	59,558	187,786	31,440	43,894	1,826	12,370
Washington	11	18,980	11,325	118,533	97,285	330,866	31,402	45,193	3,219	19,401
Westchester	73	12,976	7,885	11,321	9,273	36,012	47,904	43,947	426	2,374
Total	335	103,418	55,306	361,503	314,451	1,037,641	$218,034	$258,407	10,054	$70,133

TABLE B.—*Digest of Facts by State Assessors for Board of Equalization.*

COUNTIES.	Whole number of acres returned by supervisors.	Price of farm lands per acre.	Aggregate value of farm lands.	State Assessors' valuation of the real estate of villages and corporations.	State Assessors' valuation of real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate.
Columbia	283,294	$45	$17,248,230	$4,000,000	$1,000,000	$22,248,230	$4,361,102
Dutchess	488,802	55	26,884,110	4,000,000	2,226,000	25,825,886	8,031,920
Putnam	130,151	40	5,206,040	300,000	.....	5,506,040	978,357
Rensselaer	390,867	40	15,634,680	3,000,000	12,000,000	30,634,680	7,208,439
Washington	498,597	30	14,957,610	2,000,000	.....	16,957,610	3,204,838
Westchester	280,193	100	28,019,300	19,000,000	.....	47,019,300	6,850,937
Total	2,171,904	Av. $50	$107,949,970	$32,300,000	$15,226,000	$148,191,766	$30,685,594

(C.)

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital: also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, Oct. 1, 1861.	Local assessors' valuation of real estate, as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal estate, as returned by the supervisors, 1861.	Rate per capita of personal estate over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, 1861.
Columbia	47,172	$1,060,000	$13,557,759	$22	$92	$70	$370	$288
Dutchess	64,941	1,703,900	21,947,360	26	124	98	396	323
Putnam	14,002	304,557	3,982,103	22	70	48	397	284
Rensselaer	86,328	3,750,520	19,063,031	43	84	41	277	220
Washington	45,904	1,079,950	12,876,110	23	70	47	290	280
Westchester	99,497	571,150	34,399,592	6	70	64	370	345
Total	357,644	$8,470,107	$105,125,955	....	....	....	....	....

CHAPTER VII.

GROUP III: Counties—Boundaries—Topography—Description of Counties—Albany, Delaware, Greene, Montgomery, Orange, Otsego, Rockland, Schenectady, Schoharie, Sullivan, Ulster, Area—Population—Density—Valuations—Farms—Aggregate Value of Real Estate—Traffic Routes—Aggregate Personal and Real—Distribution of Land—Grass—Tillage Crops—Vegetable Products and Value—Animals—Products and Value—Wheat Surplus Sold—Aggregate Value of Surplus—Agriculture—Grass should be Leading Feature—Hops not Profitable—English Opinion—Appendix—Agricultural Statistics—Assessed Valuation—Finance.

Counties: Albany, Delaware, Greene, Montgomery, Orange, Otsego, Rockland, Schenectady, Schoharie, Sullivan, Ulster—11.

BOUNDARIES, TOPOGRAPHY, BRIEF DESCRIPTION OF COUNTIES AND THEIR MATERIAL RESOURCES.

This group is bounded on the east by the Hudson river, north by the south line of the counties of Saratoga, Fulton and Herkimer, west by the east line of the counties of Oneida, Madison, Chenango and Broome, and south by the State lines of Pennsylvania and New Jersey.

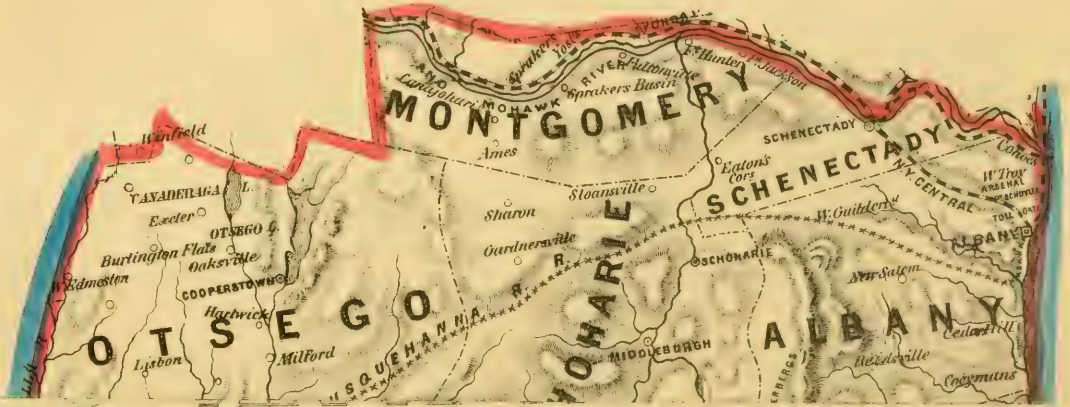
In its topography it is mountainous. It embraces the whole of the Catskill mountain group south of the Mohawk valley. It therefore partakes of the features incident to an Alpine region. High table land broken into hills and valleys, mountain peaks, deep narrow valleys, and a broken, rocky and uneven surface generally. The highest elevation reached by any of the mountain peaks is about 3,000 feet above the tide level of the Hudson river; very much of its improved land will be found at a level of from 1,000 to 1,500 and 2,000 feet above tide. This elevation affects its agriculture and prevents a large tract of land which has unrivalled market advantages from becoming highly cultivated, or its resources of soil available. Both the Delaware and Susquehanna rivers have their heads in this group. The Delaware, in the county of Delaware, near the Schoharie county line, and the Susquehanna, in the county of Otsego, near the Herkimer county line. The western and northern portion of Otsego county are properly within the fifth group, but yet its general position and topography make its position in this group proper.

In the county of Greene, where the mountains recede from the river, there is a narrow strip of level land, also along the Mohawk river, in the counties of Schenectady and Montgomery, and along the Schoharie creek, in the county of Schoharie, there are narrow strips of level interval lands, but generally, there are few tracts of level land throughout the group.

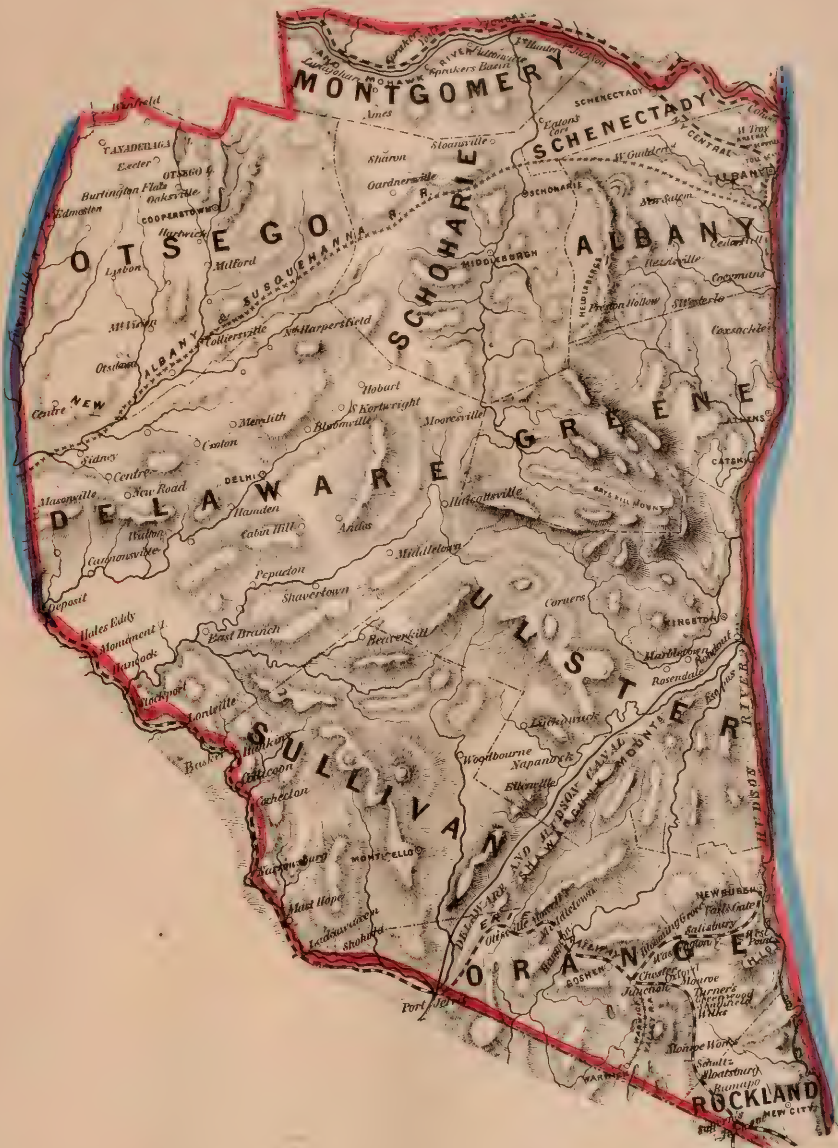
Below Greene county, the boundary upon the river is high and mountainous; in some places, as in Rockland, the mountain range is narrow, and slopes to the interior, giving some valleys of desirable land, but generally the whole group may be classed as Alpine in its appearance and resources.

The views from some of the highest accessable peaks of the Catskill mountains, are among the grandest in this region of country, embracing as they do, the Hudson river, and the eastern counties, and extending into the adjoining States.

A brief description of the several counties composing this group, with some of its material statistics which properly belong to this subject, is given below.



Comstock & Cassidy, Albany N.Y.



SOUTH HIGHLAND

GROUP 3.

Comstock & Cassidy, Albany N.Y.

The County of Albany.

Albany county is bounded on the east by the Hudson river, north by a part of Saratoga and by the county of Schenectady, west by Schoharie, and south by Greene.

The surface is broken, much of it approaching to hilly or mountainous. As a farming county, Albany is ranked in the second class, its soil not being suitable for the successful cultivation of winter wheat as a staple crop. But it is well adapted to spring grains and to grazing, whether for the shambles or for the dairy. The general elevation of the land materially modifies both the productiveness of the soil, and the modes of farming it.

The city of Albany is both a commercial and manufacturing center of increasing importance, and the hydraulic power furnished by the Mohawk river, has already caused the rapid growth of an important manufacturing town.

The advantages thus possessed of good markets easy of access, and the importance of commercial and manufacturing facilities, furnished by the Hudson river and the railroads converging to its central town, will annually increase its population and wealth, and its assessments should receive an annual revision.

Delaware County.

The county of Delaware is bounded northerly by the county of Schoharie, easterly by the county of Greene, southeasterly by parts of the counties of Sullivan and Ulster, southerly by the State of Pennsylvania, west by part of the county of Broome, and northwesterly by the county of Otsego.

Its general aspect is mountainous, being within the range of the Catskill mountains. It is a purely grazing or dairy county. It is entirely inland and isolated from all public works, except on its southern border, where the New York and Erie railroad intersects it for a short distance. It has yet large tracts of forests, and such is the uninviting nature of the climate and soil that it will be many years before the land will be cleared.

Its valuations, therefore, will require revision only at intervals of three or four years, for it can increase in population and wealth but at a very slow rate. The contemplated railroad from Binghamton to Albany, will, however, improve the condition of that portion of the territory bordering upon Otsego, and materially enhance the valuations of the real estate in those towns.

Greene County.

The county of Greene is bounded on the north by Albany county, on the east by the Hudson river, on the south by Ulster county, and on the west by parts of Delaware and Schoharie counties.

That portion of the county which lies in the valley of the Hudson river, is comparatively level, with a generally fertile and first class soil. The remainder of the county is included in the Catskill mountains, and is therefore broken and mountainous, and to be rated as third class lands, which can only be used for grazing or dairy purposes.

There is some valuable hydraulic power in the valley, but it is not extensively used. The river furnishes good facilities for marketing, at cheap

rates, the surplus products of its agriculture, and its population and wealth are slowly increasing; but its valuations will not require a revision oftener than every other year, if as often.

Montgomery County.

Montgomery county is bounded on the east and southeast by the counties of Saratoga and Schenectady, south by the counties of Schoharie and Schenectady, west by the county of Herkimer, and north by the county of Fulton.

It lays mostly in the Mohawk valley, and its surface is generally level or rolling, and portions hilly. The soil upon the river flats is exceedingly valuable, and the whole county in its agricultural capacity is equal to the best of the second class counties. The Central railroad and the Erie canal traverse it from west to east, and furnish ample facilities for developing its resources.

It has considerable hydraulic power now in use, but nothing that will ever make it a manufacturing center of importance.

Its situation is such, however, that it must increase annually in population and wealth, and its valuations should have an annual revision.

Orange County.

Orange county is bounded on the east by the Hudson river, southeast by the county of Rockland, southerly by the New Jersey State line, west by Sullivan, and north by Ulster.

The surface is more or less mountainous, hilly and broken, and embraces a great variety of soil, generally well adapted to the spring grains, to grazing and fruits, and its proximity to New York city and facilities for reaching that great market by railroads and the Hudson river, has brought nearly all its desirable land into profitable cultivation. It is one of the best of the second class counties. It has an important commercial and manufacturing center at Newburgh. The population and wealth of the county is steadily increasing, not as rapidly, perhaps, as in the counties on the opposite side of the river, but still its assessments should be annually revised.

Otsego County.

The county of Otsego is bounded on the north by the county of Herkimer, on the east by the county of Schoharie, on the south by the county of Delaware, on the west by the county of Chenango and part of the county of Madison.

In its general topography it is hilly and broken. The soil is adapted to the spring grains and to grazing, and the dairy, and its natural fertility ranks it among the best of the second class, or grazing and spring grain counties.

It has much valuable hydraulic power, portions whereof in various parts of the county are now, and have been for a long period of years, in use, but the complete isolation of the county from all facilities of a rapid and cheap transit to market, prevents the profitable use of its power, and com-

pels a valuation much below that of other counties, which do not possess the same resources in soil and motive power.

Whenever a railroad shall be constructed through the county, connecting it with the other lines of public works of the State, the valuation of its real estate should be increased at least ten dollars per acre on the aggregate valuation of its farm lands. Such a public work will also develop its other resources, and rapidly increase its population and wealth, and require a revision of its valuation annually. At present, and until some such work is constructed, the valuation will not require a new adjustment oftener than other inland counties of the second and third class. It is an important county in its agricultural capacity, and properly opened to market, must become a manufacturing center equally as important.

Rockland County.

Rockland county is bounded on the east by the Hudson river, northwesterly by the county of Orange, and southwesterly by the New Jersey State line. Its surface is hilly and broken along most of its river front, and rolling over the other portions. Its drainage is mainly to the south, into New Jersey. The soil is naturally fertile, and, under a better system of agriculture, it would, from its position, become a first class county. It is gradually improving in its population and wealth, and has now, in its railroad and river facilities, abundant means for developing its resources, mineral and agricultural.

It will increase in population and wealth, but at a less rapid rate than counties on the opposite side of the river. Its valuations will require revision only once in two years.

Schenectady County.

Schenectady county is bounded on the northeast by Saratoga county, on the south by Albany county and part of Schoharie, and on the northwest by Montgomery county.

The surface is mostly level, though a portion of it is rolling and hilly. The soil is generally alluvial, and makes the celebrated "Mohawk flats." The Mohawk valley comprises nearly all the county.

As an agricultural county it is not exceeded in the fertility of its soil by any other in the State. The Erie canal and Central railroad traverse the entire length of its territory, and furnish ample facilities for the developing of its resources. It has already a large manufacturing establishment at the city of Schenectady, and is gradually increasing in population and wealth; and its valuations should be revised at least once in two years.

Schoharie County.

Schoharie county is bounded on the east by Albany county and parts of Schenectady and Greene, south by Delaware county, west by Otsego county, and north by Montgomery county.

Much of the surface is broken and hilly. Portions of it, however, are level, and embrace the intervals along the Schoharie creek. The soil is generally well adapted to the spring grains, and to grazing, and winter

wheat has been grown to a considerable extent. It is, however, in its agricultural capacity, only a second class county. The construction of the railroad from Albany to Binghamton, will materially enhance the value of the real estate of the county, and contribute much to its prosperity, for it only lacks good and cheap transit for its products to become much more populous and wealthy. It has some hydraulic power, but not sufficient to warrant its ever becoming a manufacturing centre of any great importance. After the railroad is completed, its present valuations will require revision. But after that they will not require altering oftener than once in two or three years.

Sullivan County.

Sullivan county is bounded on the east by Orange county, on the south by the New Jersey State line, northwesterly by the county of Delaware, and northeasterly by the county of Ulster.

The surface is mountainous, hilly and broken, and its general elevation is such that its agriculture is modified thereby. Its soil is best adapted to grazing, and it is a third class or dairy county. It has mineral resources, but to what extent is not yet definitely determined, but supposed to be important. The New York and Erie Railroad, and the Canal to the Hudson river, furnish all necessary facilities for developing its agricultural resources. From the nature of its soil, and its position with regard to markets, its population and wealth will slowly increase, though it possesses much hydraulic power, that might be used for extensive manufacturing purposes. Its valuations will require a revision only once in three or four years.

Ulster County.

Ulster county is bounded on the east by the Hudson river, on the south by Orange county, on the southwest by Sullivan, on the northwest by Delaware, and on the north by Greene county. Its surface is mountainous, broken and rocky. As an agricultural county it is only third rate, and adapted principally to grazing and the dairy.

It has large mineral resources, and they are being rapidly developed by the facilities of transportation furnished by the Hudson river. The Delaware and Hudson canal, which has its terminus at Rondout, in this county, and connects the navigable waters of the Hudson river with the great coal fields of Pennsylvania, is building up villages that are increasing annually in wealth and population. Taken as a whole, in all its interests, the general increase of population and wealth will be such as to require a revision of its valuations at least once in two years.

Area, Population, Agricultural Products and their Valuation, Routes of Traffic, Banking Capital.

AREA.

This group is seventeen per cent. of the area of the State, and embraces an area of 7,284 square miles, whereof there are :

Improved	3,380 square miles.
Unimproved	3,904 do
Total square miles	7,284

The proportion is :

Improved	46 per ct.
Unimproved	54 do

Reduced to acres, at 640 per square mile, and there are :

Improved acres	2,485,309
Unimproved acres	2,163,339
Total acres	4,648,648

The improved is 46 per cent. of the lands of the whole group, or the improved to the unimproved is as 46 to 54.

The proportion of the improved land to the aggregate improved land of the State, is 18 per cent., and the unimproved is 12 per cent. of the aggregate unimproved land of the State.

Of the unimproved land, there will be cleared up and added to the improved, principally for pasturage, about 500,000 acres. The largest portion will be in Delaware and Ulster counties, but small additions will be made in the counties of Sullivan, Schoharie and Greene. Beyond that number of acres, the balance must ever remain waste and unimproved, owing to the mountainous nature of the land.

POPULATION.

The aggregate population is :

Village	261,055
Rural	185,874
City	71,946
Total population	529,875

The proportion of each is :

Village	42 per ct.
Rural	36 do
City	22 do

The aggregate population is 13 per cent of the State.

The incorporated cities are Albany and Schenectady. Among the large towns are Newburgh, Kingston, Rondout, Nyack and Catskill.

Each have advantages in their position that will insure increasing population and wealth.

There is a tendency in this group to concentrate population, for already the city and village population is 64 per cent.

The rural population has reached its maximum, and hereafter will decrease rather than increase.

THE DENSITY OF POPULATION.

Total population to total area is 70 inhabitants to the square mile.

But to the improved it is 134 to the square mile. While the rural population to the whole area is only 25.5 to the square mile. There are however 48 rural inhabitants to the square mile of improved land.

The average size of farms is 80 acres of improved land, or 13.5 acres to each rural inhabitant.

VALUATIONS.

The cash value of farms, stock and implements by the State census of 1855, was :

Farms	$125,814,773
Stock	17,720,784
Implements and tools	5,436,771
Total capital invested in agriculture	$148,972,328

The average value of farms, stock, and tools and implements, per acre is:

Farms, per acre	$51 00
Stock, do	7 00
Implements, per acre	1 70
Total	$59 70

The whole average capital invested in the farm is :

Farm	$4,080
Stock	560
Implements	113
Total invested	$4,753

The aggregate value of all the real estate in the group is :

Farm lands	$125,814,773
Village and corporation	20,500,000
City	24,500,000
Total value of real estate	$170,814,773

The miles of traffic routes are :

Hudson river	20
Railroads	329
Canal	144
Total miles	593

The proportion square miles of area to 1 mile of traffic routes is as 12 to 1, or 12 square miles to one mile of route.

The valuations of real estate by the State Assessors, and of personal estate by the town assessors, whereon the report of the board of equalization for the years 1862 and 1863, was based are as follows:

Farm lands	$108,826,284
Village and corporation real estate	20,200,000
City real estate	24,500,000
Total value of real estate	$153,526,284
Personal estate	24,362,577
Total value of real and personal estate	$177,888,861

The details of the above are tabulated in table B of the appendix to this group.

The banking capital employed in 1861, was $8,655,917.

The details of the above valuations are tabulated and shown in table C of the appendix to this group.

DISTRIBUTION OF FARM LANDS.

Pasture, acres	$1,028,643
Meadow, acres	693,603
Total in grass, acres	$1,724,246

The proportion of acres in grass to the whole cultivated or improved land is—

Pasture	41 per ct.
Meadow	28 do
Total grass	69 do

Therefore 69 acres out of every 100 is in grass either as pasture or meadow.

Spring wheat, acres	13,400
Winter wheat, do	21,887
Oats, do	283,460
Rye, do	106,368
Barley, do	10,603
Total in white straw crops, acres	435,718

This is 17 per cent of the improved land in straw crops.

Buckwheat	104,467
Corn	100,176
Peas	8,824
Beans	1,246
Total fodder crops	214,713
Potatoes, acres	36,059
Turnips, do	1,280
Total root acres	37,339
Flax acres	2,678
Hops, acres	5,394
Market gardens	1,513
Total in mercantile crops	9,085

Recapitulation.

Total acres in white straw crops	435,718
do in fodder do	214,713
do in roots do	37,339
do in mercantile do	9,087
Total acres under cultivation	696,857

Which is 28 per cent of the improved land, and leaves only the small fraction of 3 per cent of the improved land unaccounted for, and may be included in orchards.

VEGETABLE PRODUCTS AND THEIR VALUE.

Hay tons	658,109	$6,581,090
Grass seed bush	21,176	42,352
Spring wheat bush	121,466	182,191
Winter do	137,267	205,901
Oats do	4,465,093	1,239,527
Rye do	1,066,047	852,838
Barley do	147,354	117,883
Buckwheat do	838,394	419,197
Corn do	2,007,582	1,606,065
Peas do	112,316	89,853
Beans do	15,892	31,784
Total bushels of grain	8,911,411	
Potatoes	1,964,041	982,020
Turnips	141,047	14,105
Total roots	2,105,088	
Flax seed	12,369	18,554
Lint, lbs	1,406,428	140,643
Hops, lbs	3,886,620	388,662
Apples, bush	2,025,800	202,580
Cider, bbls	47,476	47,476
Straw		500,000
Total annual value of vegetable products		$13,356,988

The aggregate grain products are equal to 14 bushels per acre upon the land cultivated with grain crops.

The average aggregate value of the annual vegetable products of the groups upon the improved land, exclusive of pasturage, is $9.65 per acre.

ANIMALS, AND VALUE OF THEIR PRODUCTS.

Meat cattle, total number		390,681
Meat cattle, under 1 year	57,245	
Meat cattle, over 1 year, exclusive of working oxen and cows	95,906	
Working oxen	28,965	
Cows	208,905	
Cattle killed for beef	38,537	
Horses, whole number		90,372
Mules, do		474
Sheep, do	388,339	
Sheep shorn do	267,612	
Whole number reduced to cattle, at 7 sheep for 1 head		55,491
Whole number of cattle or their equivalent		537,018

The aggregate of improved land to cattle is one animal to 45 acres of land.

Of cows, there is one to 12 acres. The proportion of cows to the aggregate of State is 19 per cent.

The proportion of cows to the cattle of the group, or their equivalent, is 39 per cent. But the proportion of cows to neat cattle is 53 per cent.

Swine under 6 months old	116,391
Swine over 6 months	91,446
Total number of swine	207,837

ANIMAL PRODUCTS AND THEIR VALUE.

Wool, lbs	919,796 10c.	$367,918
Butter, lbs	20,179,693 20c.	4,035,939
Cheese, lbs	3,527,482 10c.	352,748
Milk sold, gallons	5,553,581 8c.	444,286
Poultry, value sold	177,257	447,373
Eggs sold	270,116	
Total value of animal products, exclusive of cattle killed and sold		$5,648,264
Add the value of swine over six months old, 91,446, $12 per head,		1,097,352
As this is a grazing district, all the cattle killed should be added, viz., 38,537 head at $20 per head		770,740
One-third of the cattle over one year old, exclusive of those killed, viz., 31,969 head, at $20		639,380
One-tenth of the horses, as probably sold, viz., 9,837, at $30		271,111
One-fourth of the sheep may be assumed as sold, viz		194,218
Total value of animals and animal products		$8,621,065

A portion of the hay and straw of this group are exported. But as the surface of the country in the interior, from the Hudson river, is mountainous, and there are but few routes whereby such bulky articles can be brought to market profitably, it is perhaps but fair to assume that there are not to exceed 100,000 tons of hay exported, and about $100,000 worth of straw sold for export.

Owing to the market facilities furnished by the canals and river, it may be safely assumed that the oats, rye and barley are made a surplus or marketing crop. Corn and peas are generally consumed on the farm; beans only being sold. A portion of the potato crop is sold, perhaps not to exceed one-fourth, for the article is too bulky and cheap to bear long transportation. The same may be said with regard to apples and cider; not

over one-third of this product reaching a market. But flax seed and lint, hops and grass seed, are all marketed. The value of surplus of vegetable products annually, would be about as follows, viz.:

Hay, tons 100,000, at $10	$1,000,000
Straw	100,000
Grass seed	42,352
Oats	1,239,527
Rye	852,838
Barley	117,883
Beans	31,784
Potatoes	245,505
Apples and cider	83,352
Flax seed and lint	159,197
Hops	388,662
Total value of annual surplus of vegetable products	$4,261,100
Surplus animal products	5,648,264
Total value of annual surplus products of the farm	$9,909,364

This sum is equal to $4 per acre of the improved land, and would make the annual average income of the farms upon the improved land, equal to $320, or not far from seven per cent. upon the capital invested.

The indications of thrift, over the largest portion of this group, are such that the improving condition of the inhabitants cannot be mistaken.

Away from the great thoroughfares that border it, the accumulations of wealth must be made by slow degrees and by industry and a rigid economy. Nor will the interior ever be other than a grazing and dairy region.

As a dairy region, especially for butter, it has no rival in this State, at least. The pure water and air, and the sweet herbage of the mountain pastures of this region, enable the skillful dairy woman to send from these hills and valleys, butter which has no rival, and deservedly commands the highest price wherever known.

AGRICULTURE.

The soil and climate over the largest portion of this group, admit of but little variety in its agriculture. Pasturage and the dairy must ever remain the occupation of its rural population. Their industry may be varied to some extent, but their true wealth will be most increased by increasing their annual animal surplus. The soil has the mineral elements of a perpetual fertility, for the rocks of nearly all parts of this group contain either lime or potash in appreciable quantities. Thus it will always be in the power of the farmer to increase his store by a judicious management of his soil. He cannot amend the climate, which owing to the elevation of the great proportion of the land, will partake more or less of Alpine rigors, yet he can, by adopting a system of farming suited to its peculiarities, mitigate its rigors.

The attempt to raise grain to any extent beyond the absolute necessities of the farm, except in favored localities, is poor economy. Grass, in pasture or meadow, should be the great object of every farmer, and all his energies should be directed to this end, and he must regard this as the sheet-anchor of his success. He should regard a good turf as more important than his wife's best carpet, and be quite as careful of its preservation. The plow should be used as sparingly as possible, and manure husbanded with the greatest care, and applied with a liberal hand. The time has

come when the farmer may add to his surplus crops, flax and the sugar beet. One prepares the way for the other, and both come well within the means of the dairy farmer. Neither impoverish the soil, and both add to the manurial resources of the farm, for only one ton in five of flax need to be carried from the farm, and the balance forms the choicest kind of bedding for stalled animals. And one ton out of five of the gross products of the beet is excellent forage for cows.

Thus, by growing less grain, the farmer will be able to increase his gains, to increase his manurial resources, to keep more animals, and to make more manure, which after all is his best crop. He will reach that point of all good farming which is indicated by the increase of his herd, without increasing his acres.

The more manure the more cattle, the more cattle the more manure.

The general prosperity of this district, therefore, is by the increase of its grass products.

The cultivation of hops is carried on largely in this group, Otsego county being the great central hop growing county of the State. Fifty-seven per cent. of all the land in hop gardens in this State is in this group; and fifty-four per cent. of all the hops grown are also grown here.

Mr. Caird,* in speaking of the great hop district in Sussex, England, where from 10,000 to 12,000 acres are annually cultivated in hops, thus speaks of the uncertain returns from hop farming: "This plant requires the richest soil of the farm, and receives nearly all the manure produced, robbing the corn and root crops of the share which rightfully belongs to them. The farmer's attention is concentrated on his hop garden, and the rest of his farm receives very little of his regard, and hardly any of his capital. The operation of the duty gives the business a gambling character. A favorable season with a large yield of hops is disastrous to the farmer, as the market value of the article falls, while the duty swells in proportion to the bulky character of the crop. When the crop is a short one the farmer prospers, as the price of the hops rises and the total amount of duty falls. There is thus a constant succession of chances, extraordinary prices being sometimes realized, which tempt men to futher adventure, and withdraw them from that steady, persevering industry without which agriculture cannot be profitably carried on. The uncertainty of prices and crops, and the peculiar bearing of the duty, are such that very few of the hop farmers are enriched by it, many are ruined, and still more are kept on the verge of bankruptcy. It is very probable, therefore, that if the cultivation of hops were to cease, it would in the end be no loss to the Sussex farmer, as his richest land would then be released for the growth of crops of a less hazardous kind, and the rest of his farm receive a fair share of manure and cultivation."

The condition of the farms throughout this group, as well as in others, where hops were made the leading feature, fully confirms the remarks of Mr. Caird, and the opinion of some of the best financial men of Otsego county, as well as some of its wisest and most skillful farmers, confirms

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*Caird's English Agriculture, 1850-51.

the belief that the abandonment of hop culture in that county, at least, would add largely to the permanent prosperity of the bulk of farmers engaged in it. That as a subordinate branch of farming, it may be made as profitable as other branches, is perhaps true to a certain extent; but that any crop which returns nothing to the land in manure, but yet requires large quantities to ensure a profitable cultivation, will in the long run be found to add to the permanent prosperity of the farmer, is exceedingly doubtful.

In my opinion, the increased culture of this plant ought not to be encouraged.

Group III.

TABLE A.—*Agricultural Statistics from State Census of* 1855.

COUNTIES.	Acres.		Cash Value.			Acres in pasture.
	Improved.	Unimproved.	Of farms.	Of stock.	Tools and impl'ts.	
Albany	242,735	70,777	$14,315,268	$1,776,960	$550,098	61,236
Delaware	364,400	438,452	11,245,256	2,288,610	485,333	174,541
Greene	212,223	150,604	8,457,699	1,092,960	1,196,548	71,130
Montgomery	194,457	46,720	10,309,697	1,418,034	358,598	56,965
Orange	308,599	189,615	21,567,360	2,699,991	639,225	138,113
Otsego	428,932	179,559	18,318,997	2,802,602	656,876	196,401
Rockland	46,481	50,852	4,862,210	618,059	128,330	14,661
Schenectady	93,448	31,683	4,910,728	596,736	195,804	24,341
Schoharie	227,904	132,046	10,053,948	1,558,689	461,690	78,418
Sullivan	125,489	494,829	5,655,321	953,211	199,497	39,934
Ulster	240,641	378,202	16,118,294	1,914,932	564,772	72,863
Total	2,485,309	2,163,339	$125,814,773	$17,720,784	$5,436,771	1,028,603

A.—Continued.

COUNTIES.	Meadow.			Spring Wheat.		Winter Wheat.		Oats.		Rye.		Barley.	
	Acres.	Tons of hay.	Bush. of grass seed.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.
Albany	64,354	54,579	1,333	938	6,927	1,586	7,424	43,347	495,177	15,037	186,567	997	9,126
Delaware	122,502	103,896	1,741	1,233	8,538	314	955	34,016	416,659	5,807	56,527	173	2,219
Greene	71,395	58,524	355	607	3,175	2,297	7,346	16,319	160,907	10,144	72,232	271	1,787
Montgomery	41,507	44,532	4,707	1,898	18,978	3,114	23,904	44,487	997,605	2,770	39,112	2,330	39,252
Orange	83,771	103,211	1,111	8	32	7,076	43,363	15,242	291,111	17,860	202,301	15	179
Otsego	115,979	108,069	3,341	4,893	53,446	1,231	5,678	49,016	903,647	3,031	34,218	2,820	43,889
Rockland	12,984	14,828	50	2	6	376	2,945	1,963	28,168	5,323	31,600	3	14
Schenectady	18,566	16,185	808	815	6,377	673	5,165	15,809	293,768	3,899	44,752	365	5,569
Schoharie	56,386	48,774	4,557	2,968	23,074	4,997	18,646	37,784	490,063	7,843	87,592	3,572	44,136
Sullivan	41,803	40,716	1,972	9	98	333	1,472	7,004	109,883	7,560	75,153	47	1,053
Ulster	65,672	64,795	1,201	19	815	4,390	19,370	18,473	278,105	27,094	235,993	10	130
Total	694,919	658,109	21,176	13,290	121,466	26,377	137,267	283,460	4,465,093	106,368	1,066,047	10,603	147,354

A.—Continued.

COUNTIES.	Buckwheat.		Corn.		Potatoes.		Peas.		Beans.	
	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.
Albany	14,722	84,812	12,612	193,691	6,884	375,654	1,845	15,989	339	2,306
Delaware	11,970	86,330	5,543	119,383	3,869	209,567	234	2,229	50	2,128
Greene	10,021	33,913	9,819	99,204	3,076	116,871	239	1,532	135	693
Montgomery	12,797	141,677	10,494	247,516	1,945	145,154	1,367	22,855	228	3,941
Orange	4,647	23,023	19,961	357,490	3,789	123,551	9	230	27	348
Otsego	9,903	112,732	12,395	340,170	5,026	412,703	1,824	29,935	119	2,711
Rockland	1,917	8,722	3,458	51,873	1,223	47,223	2	49	5	63
Schenectady	5,983	41,858	5,690	92,279	1,884	105,132	389	5,551	87	714
Schoharie	16,800	169,078	7,187	161,153	3,164	190,432	2,888	33,482	172	1,656
Sullivan	6,403	65,571	4,409	102,594	1,759	103,188	7	168	31	698
Ulster	9,375	70,676	18,429	242,229	3,440	134,539	20	296	53	534
Total	104,538	838,394	109,997	2,007,582	36,059	1,964,014	8,824	112,316	1,246	15,892

A.—Continued.

COUNTIES.	Turnips.		Flax.			Hops.		Apple Orchards.		Market Gardens.	
	Acres sown.	Bushels harvested.	Acres sown.	Pounds of lint.	Bushels of seed.	Acres planted.	Pounds harvested.	Bushels of apples.	Barrels of cider	Acres cultivated.	Value of products.
Albany	104	14,696	52	2,675	210	12	7,440	254,251	6,038	1,112	$97,461
Delaware	129	19,612	10	1,477	225	187	69,028	259,160	5,918	3	69
Greene	81	6,732	5	1,620	14	9	26	192,814	3,954	56	4,174
Montgomery	8	1,441	1,132	1,016,929	7,746	453	241,603	155,861	5,608	23	2,130
Orange	105	11,569	.....	.....	.....	.....	.....	80,180	3,188	68	7,922
Otsego	69	19,091	386	98,504	1,424	4,132	3,122,258	601,196	8,880	10	439
Rockland	64	10,792	.....	.....	.....	.....	.....	3,253	47	22	2,665
Schenectady	26	4,149	403	260,200	2,346	14	2,600	105,551	2,848	122	8,105
Schoharie	51	8,427	73	13,916	526	525	440,754	222,182	3,689	.....	.....
Sullivan	129	20,402	.....	.....	.....	1	176	73,298	1,700	3	278
Ulster	514	24,136	117	2,107	78	62	2,735	397,754	5,606	95	7,114
Total	1,280	141,047	2,178	1,397,428	12,569	5,395	3,886,620	2,345,506	47,476	1,514	$130,357

A.—Continued.

COUNTIES.	Neat Cattle.						Pounds of butter.	Pounds of cheese.	Gallons of milk sold.	No. of horses.
	Total.	Under 1 year.	Over 1 yr. ex've of oxen & cows.	Oxen.	Cows.	Number killed.				
Albany	23,247	3,184	4,918	1,813	13,332	11,466	1,173,527	36,520	502,994	10,954
Delaware	65,181	10,978	14,939	4,780	34,484	2,044	4,026,575	61,185	5,010	9,140
Greene	25,239	3,858	6,440	2,349	12,592	2,083	1,191,930	21,317	74,690	6,203
Montgomery	39,545	7,156	12,881	1,046	16,801	2,376	1,211,385	1,538,654	68,171	8,836
Orange	57,602	4,929	8,997	3,489	40,187	6,175	3,285,587	80,660	4,553,514	9,986
Otsego	63,798	8,711	17,432	2,942	34,713	3,537	3,075,206	1,638,493	3,440	14,652
Rockland	7,198	601	1,316	573	4,708	985	266,006	2,500	278,660	3,715
Schenectady	8,614	1,387	2,862	591	5,768	2,204	515,662	72,019	73,070	4,219
Schoharie	38,771	6,971	11,147	2,440	18,213	2,042	1,832,257	71,016	10,221	9,682
Sullivan	27,346	4,707	7,600	4,265	10,775	1,155	931,927	4,598	44,924	3,092
Ulster	34,140	4,763	7,374	4,671	17,332	4,470	1,669,631	520	88,887	9,893
Total	390,681	57,245	95,906	28,965	208,905	38,537	20,179,693	3,527,482	5,553,581	90,372

A.—Continued.

COUNTIES.	Mules.	Swine.		Sheep.			Poultry.		Gypsum.	
		Under 6 months.	Over 6 months.	No. of sheep.	No. of fleeces shorn.	Pounds of wool.	Value of poultry.	Value of eggs.	Tons.	Value.
Albany	31	13,809	10,226	37,054	27,351	107,956	$26,314	$47,691	1,137	$8,573
Delaware	5	7,221	8,649	71,315	42,500	127,659	11,526	13,000	235	2,442
Greene	23	8,561	5,513	19,382	14,398	50,970	14,490	22,232	217	2,300
Montgomery	3	10,610	8,224	29,661	20,925	74,445	10,513	20,705	1,581	7,081
Orange	74	23,995	16,689	21,377	17,251	59,135	30,694	32,312	1,596	12,504
Otsego	17	11,210	11,168	109,397	82,516	278,705	23,700	41,304	1,920	13,552
Rockland	170	1,669	1,516	926	460	1,585	5,384	7,348	.....	.....
Schenectady	4	4,208	3,519	10,759	7,008	26,408	7,491	13,011	513	2,514
Schoharie	2	9,911	8,893	45,596	29,866	108,416	13,824	29,197	740	5,568
Sullivan	87	4,111	4,120	12,591	8,027	26,622	4,384	4,059	37	368
Ulster	58	21,086	12,939	29,841	17,280	57,995	28,937	39,307	365	2,524
Total	474	116,391	91,446	388,439	267,612	919,796	177,257	270,166	8,341	$57,426

TABLE B.

Digest of Facts by State Assessor for Board of Equalization.

COUNTIES.	Whole number of acres taxed as returned by supervisors.	Price of farm lands per acre.	Aggregate valuation of farm lands.	State Assessors' valuation of real estate in villages and of corporations.	State Assessors' valuation of the real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate.
Albany	308,148	$50 00	$15,407,400	$4,000,000	$23,000,000	$42,407,400	$6,276,718
Delaware	877,593	9 00	7,898,327	700,000	.....	8,598,327	1,192,460
Greene	387,718	18 00	6,978,924	2,000,000	.....	8,978,924	1,236,898
Montgomery	231,450	40 00	9,258,000	2,000,000	.....	11,258,000	659,631
Orange	479,345	45 00	21,570,525	4,000,000	.....	25,570,525	6,010,061
Otsego	609,167	19 00	11,574,173	1,500,000	.....	13,074,173	2,209,485
Rockland	101,737	45 00	4,577,715	1,500,000	.....	6,077,715	1,287,416
Schenectady	112,575	50 00	6,128,760	500,000	1,500,000	8,128,760	805,794
Schoharie	378,364	20 00	7,466,080	500,000	.....	7,966,080	841,685
Sullivan	571,500	8 00	4,572,080	1,000,000	.....	5,572,080	411,522
Ulster	669,713	20 00	13,394,260	2,500,000	.....	15,894,260	2,430,903
Total	4,727,310	Av. $23 00	$108,826,284	$20,200,000	$24,500,000	$153,524,244	$24,362,577

(C.)

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital; also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, October 1st, 1861.	Local assessors' valuation of real estate, as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal est., as returned by supervisors, 1861.	Rate per capita of personal est. over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, 1861.
Albany	113,916	$3,233,250	$31,381,015	$28	$55	$27	$293	$275
Delaware	42,465	275,000	7,421,977	7	37	30	657	175
Greene	31,930	437,132	5,800,183	14	37	23	218	181
Montgomery	30,866	765,125	6,098,176	25	21	*	283	198
Orange	63,812	1,601,160	19,487,162	25	94	69	305	305
Otsego	50,157	779,350	9,548,304	15	44	39	203	196
Rockland	22,492	89,900	4,772,080	4	58	54	211	212
Schenectady	20,002	250,000	4,941,021	12	40	28	317	247
Schoharie	34,469	50,000	5,305,784	15	25	10	180	154
Sullivan	32,385	150,000	3,559,073	5	13	8	134	110
Ulster	76,381	1,025,000	11,822,183	13	32	19	162	155
Total	518,875	$8,655,917	$110,156,958	....	....	.....	.....	.....

* Bank capital exceeds personal property returned.

Summit
Centerville
Brook
Brandy
Chazy
Ellenburgh
Sciota
West Chazy
Beckmantown
CLINTON
PLATTSBURG
RIVER
MORRISTOWN
BLACK LAKE
ST
RIVER
AU SABLE R.
CHAMPLAIN

NORTH HIGHLAND

GROUP 4.

Comstock & Cassidy, Albany N.Y.

CHAPTER VIII.

GROUP IV: Counties—Boundaries—Topography—Counties Described—Clinton, Essex, Franklin, Fulton, Hamilton, Herkimer, St. Lawrence, Saratoga, Warren—Area—Population—Valuations of Land—Farms—Routes of Traffic—Aggregate—Value of Real and Personal Estate—Distribution of Land—Grass—Tillage—Vegetable Products—Value—Animals—Products and Value—Aggregate Products—Annual Value of Farm Products—Agriculture—Suggestions when Land first Cleared—Appendix—Agricultural Statistics—Assessed Value—Financial.

GROUP IV.

Clinton, Essex, Franklin, Fulton, Hamilton, Herkimer, St. Lawrence, Saratoga, Warren—9.

BOUNDARIES, &C.

This group is bounded east by the west line of Washington county and by Lake Champlain, north by Canada East, northwest by the St. Lawrence river, southwest and west by the counties of Jefferson, Lewis and Oneida, and south by the counties of Otsego, Montgomery, Schenectady and Albany. Its greatest length is from Glens Falls, in Saratoga county, to the northwest corner of Franklin county, and is about one hundred and thirty-five miles. Its average breadth is not far from one hundred miles. This group constitutes an entire whole, and as the northern division of the State, is susceptible of no subdivision which will convey an adequate idea of its agricultural capacities, it may be considered as an isolated portion of the State, bordered by three great valleys—the valley of Champlain in the east, the Mohawk on the south, and the St. Lawrence on the north and west. The adjacent country slopes towards each of these valleys, more or less abruptly. Topographically considered, this group presents one great range of highlands, which stretch diagonally across the country, from Little Falls, on the Mohawk river, in Herkimer county, to Trimbleau Point, on Lake Champlain, in Clinton county.

Geologically considered it is one great uplift, with gradual but unequal slopes on all sides. Still the country does not slope from a continuous ridge, but rather towards all the valleys which almost surround this group. There is a culminating point in the region of the greatest elevation, from which the several slopes proceed.

To a person placed upon one of the most commanding eminences, the whole country would appear studded with a multitude of peaks, which at first are irregular and without order, but on further examination an orderly disposition of the mountain masses becomes evident.

These masses may be arranged into chains or ranges, each of which pursues a course from the northeast to the southwest, and have evidently given direction and force to the great northern current which has swept up through the valley of the St. Lawrence, between the termination of this range and the commencement of the Laurentian range, which bounds the valley on its northern side.

These mountain ranges do not present a uniform unbroken ridge, but are made up of subordinate short ridges, whose axes are oblique to the axis of the main range wherein they are situated. The axis may be called the

major and minor axis of the range. The former lies in the principal direction which the range pursues, which is from the southwest to the northeast, the latter in the direction of the short, uninterrupted ridges, which is from the southeast to the northwest.*

The highest mountains in the State are in these ranges, reaching an elevation of over 5,300 feet, and their peaks within the range of perpetual frost.

The table land and lakes have an elevation of from 1,500 to 2,000 feet. The broken condition of its surface, together with its general altitude, presents but little attraction to the agriculturist, and except upon its northern slope in the counties of St. Lawrence and Franklin, and its northeastern along the Canada line, in Clinton county, the general condition will be that of wilderness, broken only by now and then a sparse settlement of some hardy pioneers, who find their profits not in the cultivation of the soil but in hunting and fishing, and boarding the summer tourist who seeks in these wilds for the solitude and grandeurs of an Alpine region.

The mountains of Essex, the lakes and waterfalls of Hamilton and Warren have attractions, that once seen and known, will be sure to draw an annually increasing crowd from the sweltering cities to admire and become invigorated by their pure air and limpid waters.

These lakes amount in number to several hundreds, and range in size from those covering a few acres to the dimensions of 35 miles in length, and situated at an elevation of nearly 2,000 feet above tide water, and the surrounding mountains often reaching an elevation of 3,000 feet above the surface of the lakes.

The attention of the public has often been called to this interesting region. But comparatively few people are aware that a territory, equal in size to the superficial area of several of the separate States of the Union, lies in the bosom of the State, touching on one extremity the long occupied and thickly populated valley of the Mohawk, and encircled by a highly cultivated and matured country, is still shrouded in its primeval forests. This territory embraces Hamilton county, parts of Oneida and Lewis, in addition to considerable portions of all the other counties of the group, and extends over one hundred miles in length by about eighty miles in breadth.

A large portion of this territory is mountainous and impracticable to culture, for here is found the loftiest mountains east of the Mississippi river.

BRIEF DESCRIPTION OF COUNTIES WITH REFERENCE TO THEIR PRESENT OR FUTURE VALUATION.

Clinton County.

Clinton county is bounded on the north by the Canada line, on the east by Lake Champlain, on the south by the county of Essex, and on the west by the county of Franklin.

The surface is generally rolling or mountainous. The soil of the eastern and northeastern portions is much superior to the balance of the county.

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* Natural History of State of New York.—[Emmons.

It is on the extreme northeastern part of the State, and a frontier county. Its climate modifies the productiveness of its soil, and it is at best but a third rate county. Its railroad connection with the New England States and the Canadas, with the advantage of a connection with the Champlain canal, give it great facilities for market, and if it had a more congenial soil and climate would make it a second class county.

One of the State prisons are located in this county, but its inmates cannot be supported from the surplus of its soil.

It has, in the iron mines, an inexhaustible supply of the most valuable ores; and there are some furnaces and other manufacturing done in the county; but there is no important manufacturing centre, nor can the present population subsist from the products of the soil in the county. Its valuations will not require revision oftener than once in five years.

Essex County.

Essex county is bounded on the east by Lake Champlain, south by the county of Warren, west by part of the counties of Hamilton and Franklin.

Its surface is broken and mountainous, and its soil thin, and adapted mainly to grass. For agricultural purposes, it is one of the least valuable in the State. Its mineral resources are apparently exhaustless, and will in their development attract a considerable population. But the population cannot be adequately supported by the products of its soil. It has no public works, and its only facilities for marketing its mineral products are furnished by Lake Champlain, through the Champlain canal. So slowly will its population and wealth increase, that a review of its valuations will not be necessary oftener than once in ten years.

Franklin County.

Franklin county is bounded on the north by the Canada line, east by Clinton and part of Essex counties, south by part of Essex and Hamilton, and on the west by St. Lawrence county. It lies wholly within the region known as the "Northern Wilderness," and its surface is mountainous and broken, and more than two-thirds covered with lakes and forests. Its soil is uninviting for agricultural purposes, except a portion of its northern border. Like the rear of all the counties bordering upon the Adirondacs, centuries may elapse before it is sufficiently cleared of its forests to make room for agricultural occupation by even a very sparse population. It is now one of the least valuable counties in the State. It has extensive hydraulic power, which is used to some extent at Malone, a flourishing village, and a manufacturing centre of some importance.

The only public work is the Northern railroad, crossing its northern border from east to west, which furnishes ample facilities for developing all its resources. Its population will increase very slowly, and its valuations will require revising only at intervals of six or eight years.

Fulton County.

Fulton county is bounded on the east by the county of Saratoga, south by Montgomery, west by Herkimer, and north by Hamilton. It lies on the

southern slope of the great northern or Adirondac region, and is of a hilly and broken surface, with generally a thin, stony soil, adapted to grass more than to grain. It is for agricultural purposes only a third class county, and as it regards public works entirely inland. There is considerable hydraulic power, which is used to some extent for manufacturing purposes. It has no important manufacturing centre, and although it has an easy access to the Erie canal and Central railroad, yet the population and wealth will increase slowly, and its valuations will require revision not oftener than four or five years.

Hamilton County.

Hamilton county is bounded on the east by part of the counties of Essex and Warren, south by Fulton west by Herkimer, north by parts of St. Lawrence and Franklin. It lays entirely within the Adirondac region, or the region of the northern wilderness. Its surface is broken, hilly, and more or less mountainous, nearly covered with forests and lakes, and its soil mainly granite, thin and uncongenial, and not desirable for agricultural purposes. It is the least valuable of any county in the State; nor has it any resources to ever make it desirable for agriculture or manufacturing.

The value of its lands, as well as extensive tracts adjoining it on all sides, can be largely increased if the contemplated railroad from the Hudson to Lake Ontario be ever constructed. Such a work would be the means of developing the mineral resources of this entire region, and its proximity to the navigable waters of the Hudson river and of Lake Ontario would warrant an expenditure on the part of the State, if necessary to insure the completion of such an important work, that would assist to clear its forests, and open it out to agriculture. The people of this State cannot afford to leave as unproductive a tract of land—equal in extent to the State of Connecticut—which can be reached from its great commercial emporium by railroad in less than four hours. Good policy dictates that it should be placed in a condition to pay its portion of the public burthen.

Herkimer County.

Herkimer county is bounded on the east by the counties of Montgomery, Fulton and Hamilton, north by St. Lawrence county, west by Lewis and Oneida, and south by Otsego. Its surface is broken, hilly, and mountainous; more than one-half of the county, or that part north of the Mohawk Valley, lies within the Adirondac or northern wilderness, and the remarks applied to Hamilton county will apply equally well to it. That portion which lies in the Mohawk Valley, and south of it, is prime dairy and second class grain lands, and it ranks in its agricultural capacities with the best of the second class counties.

It has the benefit of the Erie canal and Central railroad, across its territory from east to west. They are not only ample to furnish all the facilities for developing its agricultural resources, but help to make Little Falls by reason of its manufacturing, a centre of considerable importance. It has important hydraulic power, which is more or less improved, and at Little Falls important manufacturing establishments are in operation.

It is a thriving county, and its advantages are such that it must increase

both in population and wealth, and its valuations should be revised at least as often as once in two years.

St. Lawrence County.

St. Lawrence county is bounded on the north by the St. Lawrence river, on the east by the county of Franklin, south by the counties of Hamilton and Herkimer, and westerly by the counties of Lewis and Jefferson.

It is emphatically a frontier county, having a longer frontage upon the State line than any other county in the State. Its surface, except a narrow strip along the river, is mountainous, broken and hilly, and more than two-thirds of all its acres are unimproved and covered to a large extent with forests that no probable system of public works will bring into market, except by slow degrees. It lies on the northern slope of the great northern wilderness, and more than a million of acres of its lands partake of the general characteristics of that region, and the same remarks applied to other sections of it, apply equally well to this portion of the county. A strip of land bordering upon the St. Lawrence river, and from twenty to thirty miles inland, embraces all the valuable and improved lands of the county. The soil, here, is well adapted to the spring grains and to grass, and compares favorably with any second class county in the State, and would bear an assessment upon its farm lands of not less than $20 per acre, whilst the balance of the county should not be rated higher than one dollar per acre.

It has immense hydraulic power, practically inexhaustible, and not surpassed by any other county in the State, not even excepting Erie or Niagara; but at present, it, in most instances, runs to waste. At some future day it may become a manufacturing centre of great importance. It has good railroad facilities for reaching the eastern markets of New England, or the southern ones of this State.

In its improved portion it is a prosperous and thriving agricultural county, and its valuations will require a revision once in two or three years.

Saratoga County.

Saratoga county is bounded on the east by the Hudson river, on the north by the county of Warren, on the west by parts of Fulton and Hamilton, and on the south by parts of Schenectady and Albany counties. The surface of its northern and western portion partakes of the general features of the northern wilderness, of which it is the eastern limit, broken, rough and mountainous. Its southeastern part along and near the river has excellent land, but generally the soil is poor and thin, and for agricultural purposes it is to be ranked as only in the second class. It has much valuable hydraulic power, and by means of the Champlain canal and its railroads, possesses abundant means for their profitable employment. If the contemplated railroad to Lake Ontario should ever be constructed, it will help still further to its improvement. It is by means of its medicinal springs and its manufacturing, already an important centre to which population is being drawn annually, and its worth is necessarily increasing. Its valuations, however, will not require revision oftener than once in two or three years.

Warren County.

Warren county is bounded on the east by part of Washington county and Lake George, on the south by Saratoga county, on the west by the county of Hamilton, and on the north by the county of Essex.

Its surface is generally mountainous, broken and rocky. The soil, where cleared of the original forest, is thin, cold, and not naturally fertile or productive, and is of little value beyond the production of grass. Its cold and uncongenial climate renders its agriculture of little importance; and the cultivation of the spring grains usually makes the farmer but scanty returns. It is at best only a third class or dairying county, and one of the least valuable in the State; yet if the contemplated railroad should be constructed, so that its timber and mineral resources can be developed, the real estate will be much more valuable than at present. The county, however, lays on the eastern slope of the great Adirondac region, and the same remarks in regard to other counties included therein, will apply to this county with equal force. It will increase very slowly in population and wealth, and its valuations will require revision not oftener than once in five years.

Area, Population, Agricultural Valuations and Commercial Routes.

This group is 24 per cent. of the surface of the whole State, and embraces an area of 10,047 square miles, whereof there are:

Improved, square miles	2,880
Unimproved do	7,167

The proportion therefor, is:

Improved	29 per ct.
Unimproved	71 do

Reduced to acres, at 640 acres to the square mile, and there are:

Improved acres	1,842,990
Unimproved acres	4,786,660
Total acres	6,639,650

The improved is 29 per cent. of the whole, or 29 acres only out of every 100 are improved. The proportion of improved land of the group, to the improved land of the State, is 13 per cent.

POPULATION.

The aggregate population is 329,385. There being no incorporated cities in the group, it is divided as follows, viz:

Rural	189,306
Village	140,079
Total	329,385

The proportion of each is:

Rural	58 per cent.
Village	42 do

The density of the population is, total population to total area, 33 persons to the square mile, or one inhabitant to every 19 acres of land.

Of the rural population there are 17 to the square mile, or 38 acres of the whole area to each person. The aggregate population to the aggregate

improved square mile is 114 persons, or dropping fractions, six acres to each individual. But the aggregate rural population to the square mile of improved land is 66, or 11 acres to each person, which makes the average number of improved acres in each farm 66.

The cash valuation of farms, stock and implements, by the State census of 1855, was:

Cash valuation of farms	$70,830,044
do of stock	11,713,835
do of implements	2,775,998
Total value of capital invested in agriculture	$85,319,877

The average value of farms, stock and implements per acre, improved, is:

Farms, per acre	$38 00
Stock, do	6 00
Implements, per acre	1 50
	$45 50

The whole average farming capital invested is:

Farms	$2,508
Stock	396
Implements	99
Total invested	$3,003

The aggregate value of all the real estate in the group is:

Farm lands	$70,830,044
Villages and corporation	8,800,000
Non-resident	1,000,000
Total	$80,630,044

The principal villages are Ogdensburgh, Saratoga Springs, Malone and Little Falls, each of which have the elements of progressive increase, both in population and wealth.

The total miles of route for commercial traffic is 516, as follows:

Railroad	318
Canals	87
Lake	111
Total miles	516

The proportion of square miles of area to one mile of traffic route, is one mile of these public routes to nineteen square miles of surface.

The valuations of real estate by the State Assessors, and of personal estate by the town assessors, upon which the report of the Board of Equalization was based, for the years 1862 and 1863, are as follows:

Farm lands	$55,082,165
Village and corporation real estate	8,800,000
Total real estate	$63,882,165
personal	9,009,140
Total personal and real estate	$72,891,305

The details are tabulated and shown in table B, of the appendix to this group

The banking capital in 1861 was $2,703.525. The details are tabulated in table C, of the appendix to this group.

DISTRIBUTION OF FARM LAND.

Pasture, acres	769,468
Meadow, acres	523,730
Total acres in grass	1,293,198

The proportion of acres in grass to the whole area of cultivated or improved land is:

Pasture	42 per cent.
Meadow	28 do
Total percentage of grass	70 do

Thus we see that seventy acres of every hundred of the improved land is either in pasture or meadow.

Spring wheat, acres		54,982
Winter wheat, acres		9,333
Oats, acres		159,614
Rye, acres		25,873
Barley, acres		7,243
Total acres in white straw crops		257,045
Buckwheat, acres	34,484	
Corn, acres	82,950	
Peas, acres	11,584	
Beans, acres	1,863	
Total acres in fodder crops		130,881
Potatoes, acres	41,214	
Turnips, acres	522	
Total acres in roots		41,736
Flax acres	561	
Hops, acres	1,319	
Market gardens, acres	295	
Total acres in commercial crops		2,175
		431,837

Total acres under cultivation, exclusive of pasture and meadow, 431,637, or 24 per cent. of the whole area of improved land; leaving a fraction, about six per cent. of the improved lands unaccounted for, but which are included in orchards and errors of census.

The proportion under cultivation in the group to the whole improved land of the State is 13 per cent.

VEGETABLE PRODUCTS AND THEIR VALUE.

Hay, tons	455,636	$3,645,088
Grass seed, bushels	15,140	30,280
Spring wheat, bushels	524,557	655,696
Winter wheat, do	56,347	70,436
Oats, do	3,054,392	916,318
Rye, do	256,282	205,026
Barley, do	118,079	94,463
Buckwheat, do	314,532	157,266
Corn, do	1,552,042	1,241,633
Peas, do	158,112	146,490
Beans, do	21,199	42,398
Total grain product (bushels)	6,058,542	
Potatoes, bushels	2,919,157	729,789
Turnips, do	66,825	6,683
Total roots (bushels)	2,985,982	

Flax seed, bushels	6,523	9,785
Flax lint, lbs	556,585	55,658
Hops, lbs	970,203	97,020
Apples, bush	1,043,658	104,366
Cider, bbls	24,379	24,379
Market garden value of products		20,127
Total value of vegetable products		$8,255,898

The average annual value of the vegetable products per acre of the improved land is $4.47 per acre.

The average annual product of grain upon the improved acre is three bushels.

ANIMALS AND VALUE OF THEIR PRODUCTS.

Neat cattle, total number		$290,456
Under one year	40,732	
Over one year, exclusive of working oxen and cows	78,523	
Working oxen	17,366	
Cows	153,825	
Horses		70,773
Mules		121
Sheep	295,063	
Number shorn	225,360	
Reducing the sheep to an equivalent of horses or cattle, being regarded as seven to one, and they are equal to cattle		42,152
Whole number of neat cattle, or their equivalent in horses and sheep		$403,502

The whole number of improved acres to each head of neat cattle is forty-five, and to each cow twelve acres.

The proportion of cows to the total stock is thirty-eight per cent., and to all the cows in the State fifteen per cent.; but of the neat cattle of the group the proportion of cows is fifty-three per cent.

Swine under six months old	52,663
Swine over six months old	54,237
Total swine	106,900

ANIMAL PRODUCTS AND THEIR VALUE.

Wool, lbs	775,773	$310,309
Butter, lbs	11,015,800	1,662,370
Cheese, lbs	11,884,219	1,188,421
Milk, galls	208,287	16,663
Poultry, value sold	76,729	
Eggs, value sold	115,325	
Total value of poultry and products	$192,054	192,054
Total value of animal products, exclusive of animals sold		$3,369,817
To this sum must be added for the value of swine over six months old, which represents the surplus sold, 54,237 head, at $10 per head		542,370
Also the value of cattle killed, as these would be the product of the locality, 20,014 head, at $20 per head		40,280
One-third of the cattle over one year old may be assumed as sold exclusive of those killed for beef, 29,266 head, at $20 per head,		585,320
One-tenth of the whole number of horses are assumed to be sold annually, 7,700 head, at $30 per head		231,000
Annual number of sheep sold equal to one-fourth of whole number, makes 73,766 head, at $2 per head		147,532
Total animal products		$4,876,319

As this is purely a dairy and grazing group, the products of animals represent the surplus products of its agriculture, except in wheat, flax seed

and lint, and in hops and barley. All the other vegetable products are represented in the animal products. Its surplus agricultural products will be as follows, viz:

Total animal products	$4,876,319
Flax seed and lint	65,443
Hops	97,020
Barley	94,463
Wheat	726,132
Total surplus products of agriculture	$5,859,448

Which is $3.17 per acre for each of its improved acres.

The average nnmber of acres of improved land to each farm being 66, it follows that the average annual surplus of the farm is $209.88, or not far from 6½ per cent. upon the capital invested in the farm.

Throughout nearly the whole of this region the population present appearances of thrift and prosperity, especially in the agricultural portion of it, near the great lines of traffic.

AGRICULTURE.

In its agriculture, this group must ever remain a purely grazing district. In St. Lawrence county, along the borders of the river, and inland for some twenty or thirty miles, spring grains may be grown to some extent, though not profitably as compared with dairy and grazing. In some favored localities in Franklin and Clinton, and in the southeastern corner of Saratoga county, and in that portion of Herkimer county south of the Mohawk river, some spring grains may also be grown. But a primary or granitic region does not furnish a grain growing soil. Yet when properly managed, it becomes valuable for pasturage.

The vast tract of forest which now covers nearly 75 per cent. of the surface of this group, is being slowly removed. The means of transporting timber and wood to markets are being improved and enlarged, and as long as fuel and lumber bear the remunerating prices they do now, the forest will disappear rapidly in the more accessible portions, and the land thus cleared if judiciously managed, will soon produce annual returns in the profit of its pasturage.

A serious mistake has been made heretofore in management of the new lands of this group.

The temptation to seed the newly cleared land with grain, as long as it could be made to produce even a scanty crop, could not be resisted by the needy pioneer, and the result has been the land has become so completely impoverished that the third crop has usually exhausted the vegetable matter of the soil, not even grass, or any other vegetation which would support animal life, has been produced, and the land remains worthless for any purposes of cultivation, for it is not in the power of the farmer to furnish the manure necessary to renovate the hungry soil.

The true method to be pursued in regard to the lands over nearly all this group, is to seed them down to grass and white clover with the first crop after being cleared. The vegetable matter then in the soil will aid in producing a strong turf, which becomes the more valuable the longer it remains. In the counties of Dutchess and Putnam, they have pastures upon their rocky hills which have been in grass for fifty, sixty, and in some

instances, nearly or quite a hundred years, that the owners would not have plowed up, if such a thing were possible, for any reasonable consideration, so valuable have they become by reason of the richness of the food thus furnished to their cattle and sheep.

The true policy of the farmers in this region, where the land is newly cleared, is to lay it down to grass as soon as possible, and to make their meadows and pastures perpetual. By so doing, valuable sheep walks may be established, and an otherwise forbidding farming country, by reason of its climate and soil, becomes comparatively prosperous.

The great value of this region, after its forests have been converted to lumber, will be in its mines, which are now only partially brought to light. It is already known that iron ore of the richest quality abounds to an inexhaustible extent. Galena has been found, and it is not improbable that silver and other valuable ores will yet be found abundant in its rugged mountains. Chance or science may yet divulge its hidden treasure, and though its soil can only support a very sparse population, the contents of its subsoil will fill it with thriving, populous towns.

In the distribution of its improved land, we have seen that 70 per cent. is in grass, whereof 42 per cent. is pasturage. This indicates that the agriculture is that of stock raising and the dairy country, where stall feeding cannot be practiced profitably, but that the surplus animals must be sold rather from the pasture than the yard.

Group IV.

TABLE A.—*Agricultural Statistics from State Census of* 1855.

COUNTIES.	Acres.		Cash Value.			Acres in pasture.
	Improved.	Unimproved.	Of farms.	Of stock.	Tools and impl'ts.	
Clinton	168,932	401,086	$6,306,142	$1,047,497	$274,726	66,171
Essex	185,443	774,175	4,604,253	970,214	180,000	82,726
Franklin	144,627	834,964	4,998,778	1,042,006	243,335	57,424
Fulton	133,415	147,070	5,103,631	891,427	222,645	52,546
Hamilton	16,675	766,978	757,004	80,804	24,800	5,976
Herkimer	267,414	505,657	14,812,184	2,134,237	476,445	122,730
St. Lawrence	500,554	885,531	18,117,429	3,144,908	751,437	216,985
Saratoga	315,728	139,849	13,526,379	1,842,426	496,183	121,692
Warren	111,202	331,341	2,604,246	560,316	106,429	43,218
Total	1,843,990	4,786,671	$70,830,246	$11,713,835	$2,776,000	769,468

A.—Continued.

COUNTIES.	Meadow.			Spring Wheat.		Winter Wheat.		Oats.		Rye.		Barley.	
	Acres.	Tons of hay.	Bushels of grass seed.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Clinton	51,172	48,241	1,078	5,550	57,172	237	2,138	14,532	276,080	1,649	13,073	439	6,877
Essex	56,829	39,139	1,019	4,838	44,009	315	2,484	14,334	234,946	1,631	13,357	86	1,118
Franklin	45,906	37,594	662	6,958	69,559	175	1,353	9,411	144,617	2,235	20,191	693	6,188
Fulton	34,070	33,903	5,192	734	7,500	415	3,644	17,367	355,855	1,707	22,383	931	14,704
Hamilton	6,297	4,274	114	76	245	1	6	1,187	16,701	32	277	14	42
Herkimer	74,097	78,254	1,943	2,777	38,149	581	5,904	30,763	724,585	1,085	17,550	2,709	51,439
St. Lawrence	163,623	139,400	3,220	32,623	295,464	3,991	24,780	28,866	437,041	2,741	25,725	1,713	28,187
Saratoga	60,602	52,743	1,514	890	8,074	3,397	14,826	35,590	744,220	13,317	132,774	658	9,524
Warren	31,134	22,088	398	540	4,285	221	1,212	7,564	120,347	1,476	10,952	.....	.....
Total	523,730	455,636	15,140	54,982	524,557	9,333	56,347	159,614	3,054,392	25,873	256,282	7,243	118,079

A.—Continued.

COUNTIES.	Buckwheat.		Corn.		Potatoes.		Peas.		Beans.	
	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.
Clinton	4,606	30,651	6,132	92,567	5,874	385,492	1,313	14,455	597	6,993
Essex	2,431	13,701	5,866	105,369	4,286	318,121	1,088	11,625	284	2,818
Franklin	1,705	13,625	4,859	83,615	5,709	484,425	1,004	12,074	174	1,839
Fulton	5,522	69,759	7,013	155,733	2,284	182,964	774	14,202	39	761
Hamilton	459	2,913	435	7,151	406	25,257	14	140	5	154
Herkimer	3,505	42,875	9,782	283,748	3,108	257,875	1,586	27,864	83	1,616
St. Lawrence	1,758	12,912	12,755	220,593	9,172	604,023	5,254	69,016	475	5,131
Saratoga	11,588	108,882	28,849	479,449	7,745	487,672	331	6,466	112	972
Warren	2,910	19,214	7,268	123,817	2,630	173,328	220	2,270	94	915
Total	34,484	314,532	82,950	1,552,042	41,214	2,919,157	11,584	158,112	1,863	21,199

A.—Continued.

COUNTIES.	Turnips.		Flax.			Hops.		Apple Orchards.		Market Gardens.	
	Acres planted.	Bushels harvested.	Acres sown.	Pounds of lint.	Bushels of seed.	Acres planted.	Pounds harvested.	Bushels of apples.	Barrels of cider.	Acres cultivated.	Value of produce.
Clinton	52	5,314	36	7,700	236	2	1,014	76,936	852	2	$408
Essex	64	9,128	2	195	6	5	200	64,200	909	.....	.....
Franklin	67	13,092	2	704	6	418	231,217	26,273	377	5	583
Fulton	38	4,213	143	223,005	1,215	23	11,500	100,142	2,670	.....	.....
Hamilton	14	1,589	1	600	.....	.....	.....	3,489	18	.....	.....
Herkimer	27	2,579	312	308,050	4,241	594	510,033	333,901	6,446	9	1,133
St. Lawrence	71	7,896	3	1,206	4	259	197,875	90,497	719	31	4,730
Saratoga	120	12,809	62	15,125	815	18	18,364	289,478	11,386	248	13,184
Warren	69	10,205	....	.....	.....	.....	.....	58,772	1,002	2	85
Total	522	66,825	561	556,585	6,523	1,319	970,203	1,043,658	24,379	295	20,123

A.—Continued.

COUNTIES.	Neat Cattle.						Pounds of butter.	Pounds of cheese.	Gallons of milk sold.	Horses.
	Total.	Under 1 year.	Over 1 year ex. oxen.	Working oxen.	Cows.	Cattle killed.				
Clinton	25,555	4,411	8,376	1,484	11,284	2,385	891,431	105,906	3,402	8,444
Essex	23,567	3,998	8,739	2,081	8,749	1,736	625,542	93,594	1,845	6,149
Franklin	23,677	3,474	7,425	1,859	19,819	1,305	1,050,040	143,916	6,300	6,029
Fulton	19,922	3,081	5,400	1,173	10,268	1,509	840,397	579,079	8,103	5,820
Hamilton	2,456	488	756	360	852	127	83,282	2,670	....	338
Herkimer	49,820	5,046	7,336	785	36,653	2,557	1,305,377	9,068,519	54,960	9,098
St. Lawrence	96,408	12,403	26,268	5,576	52,161	4,542	4,268,809	1,673,000	16,052	20,261
Saratoga	34,769	5,562	9,804	2,625	16,778	4,356	1,468,136	152,901	88,424	11,293
Warren	14,282	2,269	4,429	1,423	6,161	1,497	482,786	64,634	29,201	3,341
Total	290,456	40,732	78,533	17,366	153,825	20,014	11,015,800	11,884,219	208,287	70,773

A.—Continued.

COUNTIES.	Mules.	Swine.		Sheep.			Poultry.		Gypsum.	
		Under 6 months.	Over 6 months.	No. of sheep.	No. of fleeces shorn.	Pounds of wool.	Value of poultry.	Value of eggs sold.	Tons.	Value
Clinton	36	2,875	4,993	38,351	28,417	97,133	$5,541	$11,444	268	$2,189
Essex	43	2,775	3,729	47,654	38,158	134,735	3,460	5,553	207	2,065
Franklin	3	2,820	4,715	23,958	20,125	70,737	3,135	3,610	58	659
Fulton	1	5,847	4,667	16,969	10,901	37,903	10,289	14,122	477	2,508
Hamilton	..	169	341	1,481	1,048	3,251	444	141	1	7
Herkimer	10	9,125	9,102	17,706	11,254	43,561	12,489	12,196	2,076	8,898
St. Lawrence	20	10,881	13,205	86,454	70,413	246,683	9,249	16,310	278	2,106
Saratoga	2	15,206	10,797	46,018	33,498	111,769	28,949	46,379	2,188	12,630
Warren	6	2,965	2,738	16,472	11,546	30,001	3,173	5,570	357	1,942
Total	121	52,663	54,237	295,063	225,360	775,773	$76,729	$115,325	5,910	$33,004

B.

Digest of Facts by State Assessors for Board of Equalization.

COUNTIES.	Whole number of acres returned by supervisors.	Price of farm lands per acre.	Aggregate value of farm lands.	State Assessors' valuation of the real estate of cities.	State Assessors' valuation of real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate.
Clinton	617,776	$9 00	$5,558,184	$900,000	.....	$6,458,184	$703,647
Essex	1,068,691	3 00	3,306,073	500,000	.....	3,806,073	457,705
Franklin	997,053	4 00	3,988,202	900,000	.....	4,888,202	402,465
Fulton	313,162	14 00	4,384,268	250,000	.....	4,634,268	539,766
Hamilton	772,846	1 00	772,846	.....	.....	772,846	3,757
Herkimer	653,728	15 00	9,805,905	2,000,000	.....	11,805,905	1,935,862
St. Lawrence	1,679,295	9 00	15,123,165	2,000,000	.....	17,123,165	1,704,190
Saratoga	509,390	20 00	10,187,806	2,000,000	.....	12,187,806	2,838,748
Warren	488,929	4 00	1,955,716	250,000	.....	2,205,716	423,000
Total	7,100,870	.....	$55,082,165	$8,800,000	.....	$63,882,165	$9,009,140

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital; also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, October 1st, 1861.	Local Assessors' valuation of real estate, as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal est., as returned by supervisors, 1861.	Rate per capita of personal est. over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, 1861.
Clinton	45,735	$150,000	$5,051,308	$3 00	$15 00	$12 00	$109 00	$115 00
Essex	28,814	100,000	3,643,025	3 00	16 00	13 00	102 00	164 00
Franklin	30,837	150,000	4,184,126	5 00	13 00	8 00	123 00	136 00
Fulton	24,162	250,000	3,451,202	10 00	22 00	12 00	108 00	143 00
Hamilton	3,024	.....	466,798	.....	1 00	1 00	191 00	126 00
Herkimer	40,561	773,125	7,866,381	19 00	47 00	28 00	227 00	194 00
St. Lawrence	83,689	422,000	14,376,546	5 00	20 00	15 00	160 00	172 00
Saratoga	51,729	610,000	8,862,388	12 00	55 00	43 00	184 00	171 00
Warren	21,434	248,400	2,151,073	12 00	20 00	8 00	80 00	100 00
Total	329,985	$2,703,525	$50,252,757	....	.....	.....	.....	.....

CENTRAL AND SOUTH WESTERN DAIRY

GROUP 5.

Comstock & Cassidy Albany NY

CHAPTER IX.

GROUP V: Counties—Boundaries—Topography—Prof. Hall's Description—Counties Described—Allegany, Broome, Cattaraugus, Chautauqua, Chemung, Chenango, Cortland, Erie, Jefferson, Lewis, Madison, Oneida, Oswego, Schuyler, Steuben, Tioga, Tompkins, Wyoming—Area—Population—Capital in Agriculture—Value of Real Estate—Personal—Distribution of Land—Grass—Tillage Crops—Vegetable Products and Value—Animals—Products and Value—Agriculture—Can be Improved—Appendix—Agricultural Statistics—Assessed Value—Financial Table.

GROUP V.

Allegany, Broome, Cattaraugus, Chautauqua, Chemung, Chenango, Cortland, Erie, Jefferson, Lewis, Madison, Oneida, Oswego, Schuyler, Steuben, Tioga, Tompkins, and Wyoming, 18 counties.

BOUNDARIES.

This group is bounded on the east by the west line of the 3rd and 4th groups; westerly by the east end of Lake Ontario, the east line of Onondaga county, and by Lake Erie and part of the Pennsylvania line; north, by the south line of the counties composing the 6th group, and south by the Pennsylvania line. It extends in the form of an L, with its shortest leg to the north across the State from the east line of the county of Broome west, and from the Pennsylvania line on the south line of the same county to the St. Lawrence river on the north-west line of Jefferson county, embracing the southern and south-western tier of counties, and the midland and north-western midland counties.

Nearly the whole surface lies upon the upper members of the New York system of sedimentary rocks, and occupies except in some small localities all the series above the Hamilton group, and above the limestone series, and upon the argillaceous and silicious members of the group.

TOPOGRAPHY.

In its topography, it is a vast aggregation of water sheds whose drainage is at various angles with the direction of the great rivers that bear away its surplus waters, southwardly either into the Chesapeake or Delaware bays, through the Susquehanna or Delaware rivers, or westwardly into the Gulf of Mexico, through the Allegany and Ohio and Mississippi, and in some exceptional localities into the Ontario basin, through the St. Lawrence river.

The Genesee river taking its rise in the northern highlands of Pennsylvania, drains to the north into Lake Ontario, the waters from the divides between its valleys and those of the Allegany on the west, and Susquehanna on the east. And although it is the only stream in the State that runs north across its whole breadth, yet it by no means modifies the general surface or characteristics of the group.

At some time in the history of this globe the sedimentary rocks of the New York system have reached from the Catskill mountains at an elevation of nearly three thousand feet above the level of the sea, far on to the west and beyond the western bounds of the State. The new red sandstone found near the Pennsylvania line on the highest hills in Cattaraugus county and that upon the Catskill mountains indicates that the same cause which

excavated Lake Ontario, also ground off the mass of rock over this whole territory and reduced its elevation by at least some 500 feet upon its hills to perhaps 1,000 or 1,200 feet in its deepest valleys, and left a succession of hills and valleys over nearly all of this territory.

Whatever may have been the agency that tore up the solid strata of rock and carried its comminuted particles and spread them out over the vast fields of the Western States, creating a soil of unparalleled fertility, is not within the province of this report to discuss. That it may have been due to glaciers, which modern science renders not improbable, or to vast oceanic currents, or to both, which is probable, their course was in the direction of the St. Lawrence valley from northeast to southwest; and their power is visible in shaping the valleys and hills of this group, as well as the condition of its soil.

The valleys are all the result of the force of water upon the adjacent rock, and therefore bear a direction corresponding in a general outline to that of the great oceanic current, being west-southwest and south-southwest.

The northern line of most of the counties, except Oneida county, which contains the divide between the waters of Lake Ontario from those of the Mohawk, and the counties of Jefferson and Oswego, forms the southern rim of the narrow basin of Lake Ontario, and for a portion of Chautauqua county, of Lake Erie.

This condition of its topography, together with the impervious nature of the rock, and the shallowness of the drift whereby it is covered, and its general elevation, affects its agriculture in an important degree.

Taken in its aggregate it may be considered by far the largest continuous surface of argillaceous and silicious lands in the State, and a marked similarity within its soil, topography and consequent agricultural product is observed in the whole group.

A brief description of a large portion of this group, as affected by its geology, may not be without interest, as it serves to make its topography more intelligible, and to explain many phenomena in regard to the varieties of its soil.

Prof. Hall,* after describing the appearance of the country that constitutes the next or sixth group, which he represents as a succession of terraces formed by the outcrop of the two great limestone formations, the last or southern one extending through the State, from the Hudson to the Niagara river, and first seen in this group in the southern bounds of Oneida county. From this last terrace, going south, the country is generally level, for several miles, when we commence a gradual ascent to higher ground. "Here, however, there is no definite line bounding the northern extension, as in the case of the two terraces, but the outline is irregular, projecting in one part and receding in another. We find ourselves upon the margin of a country composed of hills and valleys, having no general direction other than that given by the water courses, although the country to the south of this is hilly, and in some parts rising to an elevation of twenty-

* Natural History of New York.

five hundred feet above the ocean; yet it must be remembered there are no ranges of mountains; the whole surface is equally and alike covered with elevated plateaux, without the possibility of limiting them as to course or direction. The deepest valleys being north and south, gives this apparent bearing in some places to the neighboring hills.

"Having no disturbance or upliftings, we are therefore to look to another cause for the production of these hills. We must fancy this whole southern border of the State as having once been a high and broad plateau, with the underlying rocks extending much further to the north, uniform in outline and even in surface, as the limestone terraces just described; and that from denudation, the breaking up of the strata in some places, together with the action of waves and currents, has resulted this irregular and uneven surface. As proof of this, if we examine the strata on two sides of a ravine, we shall find that if continued they will meet in the same plane; and pursuing the same course in regard to near or distant hills or across broad valleys, we find invariably the same rule to hold good. These features are produced only by the removal of the mass which once filled the space, precisely in the same manner as those made by excavation of roads through ridges of sand and gravel; the power in this case being that of nature over a great extent of surface, and in the other that of man over a small one. All these hills are termed, in geology, *outliers*, or continuations of the same strata, where some intervening portions have been removed.

"The larger streams flow in the deepest valleys, while the intermediate portion of country is less excavated and presents eminences less abrupt. Much of the higher ground exhibits a surface with gentle eminences and broad valleys, bounded by low hills, equally extensive. This character is more extreme toward the southern limit of the State, and on going northward gradually diminishes; the undulations becoming more gentle, until finally we come upon an almost unbroken level.

"Further examination will show that each change in the topographical features is due to a change in the underlying rocks, and that the same rock does not give rise to any two of the main features described.

"On investigating the lithological character of the strata in this district, we shall find that their varied composition and texture have given rise to the great features of its surface, and that hence are due not only these pleasing and beneficial inequalities, but also the origin of the streams and waterfalls which beautify and enliven the scenery, while they offer encouragement to enterprise and industry, which in a country less diversified would never be called into action.

"The form of the country determining the direction of the present water courses, is a matter of great importance. The highest portion of this district is occupied by the counties of Chemung, Steuben, Allegany, Cattaraugus and Chautauqua, the mean elevation of which is about two thousand feet above tide water." To this should be added Tompkins county. "The northern portion of this range forms the dividing ridge of the principal streams flowing in opposite directions, which mingle their waters with the ocean at distant points. Those on the north find their way into the Atlantic by Lake Ontario and the St. Lawrence river; while on the south,

some flow into the ocean by the Susquehanna, and others, passing into the Allegany, find their way to the Gulf of Mexico, by the Ohio and Mississippi. The Genesee is an exception to the general rule, a river which takes its rise beyond the borders of the State, and flows northerly through all these counties, and discharges its water into Lake Ontario.

"Valleys similar to that of the Genesee cross the district in a north and south direction. The principal of these are occupied in part by lakes, as Cayuga, Seneca and Canandaigua, the valleys in all cases continuing to the north and south extremities of these lakes, but the direction of the water courses being opposite from the highest part of the valley, which is south of the lakes.

"To the same cause to which we owe these prominent features, and the hills of the southern counties, is also due the deep fertile soil prevailing throughout the greater part of the district. The materials excavated from these valleys in the form of fragments and masses, have been transported and reduced to the condition of sand, clay and pebbles, which are distributed over the surface. By the same operation, also, the materials of the northern calcareous strata are mingled with the comminuted rocks of the south, and form a soil of unsurpassed fertility.

"The high hills and deep valleys indicate the absence of an immense quantity of matter."

The existence of these north and south valleys across the State, as in the case of Cayuga and Seneca lakes, have a great effect upon the industrial resources of the State, by enabling the citizens to avail themselves of the inexhaustible coal fields of Pennsylvania at moderate cost for transportation. But for these lakes and valleys, the expense of transportation would be so enhanced as to nearly or quite preclude its economic use in the various arts of life. It is to present and prospective cheapness of fuel that this and the adjoining groups will owe the rapid increase of their population and wealth.

The divide which separates the waters of the Mohawk from those of Lake Ontario runs across Oneida county from north to south, near the village of Rome. It continues north of Rome across the county, passes along the western boundary of Lewis county, and across Jefferson county, near the great bend of Black river, and striking the St. Lawrence westward of Alexandria bay. All that part of Lewis, Oneida and Jefferson counties lying beyond or east of Black river, and east of this divide, properly belongs to the fourth group, and partakes of its peculiarities in soil and climate.

To the south, the Stanwix divide strikes the great western summit or divide near Sangerfield, in Oneida county, which runs westerly through the county of Madison, and lies partly in the border counties of both the fifth and sixth groups, until it reaches the State line near Lake Erie.

The whole territory may be very properly called an aggregate of divides, water-sheds, or hills and valleys.

BRIEF DESCRIPTION OF COUNTIES, WITH REFERENCE TO THEIR PRESENT AND FUTURE VALUATION.

Allegany County.

Allegany county is bounded on the east by the county of Steuben, south by the Pennsylvania line, west by Cattaraugus, and north by Wyoming and a part of Livingston. It forms one of the frontier counties of the southern tier of counties.

Its surface is mountainous towards the State line, but towards the middle and north part it is hilly and broken. The soil of that portion which is drained by the Genesee river is much superior to that drained by either the Susquehanna on the east, or the Allegany on the West. It is yet a comparative new county, and there is much of its surface in forest or only recently cleared. In its soil and general agricultural capacity, it is only a third class county, being better adapted to the dairy than any other branch of farming. It may be considered, however, as one of the best of its class. The elevation of the land modifies its agriculture, and neutralizes much of the productive power of the soil.

The railroad and canal through its territory furnish ample facilities for the rapid and cheap transit of its products to market, and all that are required to fully develop its resources. It has many villages, which are flourishing, a considerable hydraulic power, but not at present any manufacturing centre of importance. Its population will increase slowly, and the valuation will require revision only biennially.

Broome County.

Broome county is bounded on the south by the State line of Pennsylvania, east by the county of Delaware, north by Chenango and part of Cortland, and west by Tioga. It is a frontier county, with an elevated, hilly and broken surface, and in its general characteristics belongs to the third class, or dairying counties. That portion which has intervales along the rivers is valuable land; but the river bottoms form only a small part of its area. The railroads and the canal, which traverse the county in various directions, furnish ample facilities for the full development of all its resources, by giving a ready and cheap transit for its products to market. It has much valuable hydraulic power, which is as yet used but to a moderate extent, and there is no manufacturing centre of importance. It is yet a comparative new county, as large tracts of its surface are covered with a dense forest. But it is gradually increasing in its inhabitants and wealth, and its assessments will require a revision as often as once in two or three years.

Cattaraugus County.

Cattaraugus county is bounded on the east by Allegany, south by the Pennsylvania line, west by Chautauqua, and north by the county of Erie and a part of Wyoming. The surface is generally hilly and broken, and largely covered with forests. The south part is of such a nature, by reason of its precipitous hills and thin soil, that it will never be of much value for agricultural purposes. The valleys are narrow, and the general elevation of

its hills such as to modify its agriculture and make it only a third class county. It is a valuable dairying county. The railroad facilities are abundant to develop all its resources. There is no important hydraulic power in the county now occupied, and it will be a long time before any manufacturing centre can be created within its bounds. The population and wealth will increase slowly, and its valuations will require a revision only at intervals of four or five years.

Chautauqua County.

The county of Chautauqua is situated on the extreme western bounds of the State, being bounded both on the south and west by the State of Pennsylvania, on the north by Lake Erie, and on the east by the county of Cattaraugus.

In its agricultural capacity it is one of the best of the second class counties, the larger part of its soil being well adapted to both spring grains and to grazing. The towns bordering upon Lake Erie are its best and most valuable, on account of soil; and they are so, also, by reason of their commercial advantages. The outlet of the Chautauqua lake furnishes a valuable hydraulic power, which is being extensively used at Jamestown; and the railroad facilities now furnished the county are such that its population must increase, and its valuation, both of real and personal property, ought to increase annually.

Chemung County.

Chemung county is bounded on the east by the county of Tioga, south by the Pennsylvania line, west by Steuben, and north by parts of the counties of Schuyler and Tompkins. The surface is generally hilly. It has some valuable lands along the borders of the Susquehanna river, but the prevailing characteristics of soil, and the elevation of its hills, place it in the third class of counties, which are mainly adapted to the purposes of the dairy. Its railroad and canal facilities are abundant to develop all its resources and to build up at the village of Elmira a manufacturing centre, which will ultimately be one of the most important along the southern border of the State. It will probably increase in population and wealth as rapidly as any among the "southern tier." Its valuation should be revised as often as once in two or three years.

Chenango County.

The county of Chenango is bounded on the north by the county of Madison, on the east by the county of Otsego and part of the county of Delaware, on the south by the county of Broome, and on the west by part of the county of Broome and the county of Cortland.

The surface of this county is broken and hilly, and the elevation of the hills affects and modifies its agriculture. It is only a third class county, being principally devoted to the dairy.

The only public work in the county is the Chenango canal, running north and south through the county. It is ample for the development of its resources. It has some hydraulic power, but not enough to ever make it a manufacturing center of any importance. It must be considered an inland

agricultural county, whose population and wealth must increase very slowly, and its valuation will require revision at intervals of some three or four years.

Cortland County.

The county of Cortland is bounded on the north by the county of Onondaga, on the east by the county of Chenango, on the south by parts of the counties of Broome and Tioga, and the west by parts of the counties of Tompkins and Cayuga.

Its surface is hilly and broken, and its general elevation is such as to affect its agricultural productions, and to make it only a third class or dairy county. It has comparatively little important hydraulic power, and its public works are confined to a single line of railroad through the county, from north to south. Considerable portions of its territory are yet in forest, which will only slowly be cleared up.

The population and wealth of the county will increase slowly and its valuations require but little revision for many years. As a county, it is among the best of the dairy counties, and its products are favorably known in the markets.

Erie County.

The county of Erie is a frontier county. It is bounded on the west by Lake Erie and the Niagara river; on the north by the county of Niagara; on the east by the counties of Genesee and Wyoming; and on the south by the county of Cattaraugus. Its capacities of soil are quite diversified. The southern range of towns, embracing about one-third of its territory, are hilly, and assimilate the general characteristics of third class or grazing lands. The central third is more fertile, and ranks as second class lands; while the north third extends into the wheat growing region, and the land may be considered as equal to the average of first class land. In connection with its peculiar commercial advantages, it may be considered one of the most prosperous counties outside of the Hudson valley. It has within its borders inexhaustible hydraulic power, which is used to some extent now, but eventually will be used to a still larger degree. The city of Buffalo is rapidly increasing in wealth and population, and there are many flourishing villages in various towns of the county which will continue to increase in population and wealth. Besides, the proximity of a great and ever-consuming market renders the farming lands of the whole county annually more valuable.

In addition to the canal, which terminates at Buffalo, there are lines of railroad traversing its whole western front, and three lines that pass entirely through it from west to east.

The valuations of this county will increase continually, and it is therefore important to adjust them annually.

Jefferson County.

Jefferson county is bounded on the east by Lewis county, on the south by Oswego, on the north by St. Lawrence, and westerly by Lake Ontario and the St. Lawrence river. The surface is undulating, with a good drainage into the lake and river. Some portions are broken and rocky, and

there is considerable forest in the eastern portions, but it is pretty extensively improved, as is shown by the figures of the census. The soil is well adapted to the spring grains, and to grazing, or the dairy. In its agricultural capacity, it is among the best of the second class counties.

It has great facilities for markets, furnished by its water and rail transportation. The Rome and Watertown railroad, with its extension north to the Northern road, and extending the whole length of its territory, north and south, is abundant to develop all its resources, whether agricultural or manufacturing. The improvement of the Black river, so that it could be used for purposes of navigation to its junction with the Black river canal, would increase the value of the rear of the county by facilitating the removal of the forests in shape of cord-wood and lumber, to the markets furnished by the railroads and canals.

Its dydraulic power is very large, and at Watertown is being extensively used, and a manufacturing centre of importance is growing up at that point. Its resources for manufacturing, and for sustaining a dense manufacturing population from its own soil, are such that it must annually increase, both in wealth and population, and its valuations should be revised at least as often as every other year.

Lewis County.

Lewis county is bounded on the east by the county of Herkimer, on the south by Oneida, on the west by the counties of Oswego and Jefferson, and on the north by the county of St. Lawrence.

The surface is rolling and hilly, but the general elevation of the whole is such as to modify the productiveness of its soil, and to render it only a dairying or third class county. The Black river divides it nearly equal; the west side of the river has a much more productive soil than on the east, which is within the Adirondac region, and the soil partakes of its characteristics, being more or less granitic, and cold, wet and thin.

The same remarks in regard to the Black River improvement, made in regard to Jefferson, have still greater force here.

Until, therefore, some public works are constructed within its territory, it will increase in population and wealth slowly, and its valuations will require revision only at long intervals, not oftener than once in five years.

Madison County.

Madison county is bounded east by Oneida county and a part of Otsego, south by Chenango, west by Onondaga, and north by Oneida lake. That portion of the county which lies north of the divide or water shed which separates the drainage into the lake, on the north, from that into the branches of the Susquehanna river on the south, is level and to some extent marshy. The remainder is hilly and rolling, and considerably elevated. Much of the soil below the divide is well adapted to winter wheat, and the whole county may be considered, agriculturally, as among the best of the second class counties, both as a spring grain, grazing or dairy county.

It has considerable hydraulic power, made more valuable by reason of the State reservoirs for supplying the Chenango canal. It is already a

manufacturing county, though it has no large manufacturing centre. The Chenango canal, which passes through its southeastern towns, and the Erie canal and Central railroad in its northern end, furnish ample facilities for properly developing its resources. Its position is such that it must gradually increase in population and wealth, and its valuations should be revised once in two years.

Oneida County.

The county of Oneida is bounded on the north by the county of Lewis, on the east by the county of Herkimer, on the southwest by the county of Madison, and on the west by the county of Oswego.

The northern half of the county is hilly or rolling, and yet covered more or less with forests, which will be but slowly cleared up, and the land brought into cultivation. This portion of the county at best is only third class lands, and must always be considered simply as a dairying region. The southern half of the county is generally rolling, and compares favorably with any similar body of land in the State in the fertility of the soil and advantages of markets.

The county has the advantage of numerous public works. It has no less than three lines of railroads running in different portions of its territory, and also three different lines of canals. There are, therefore, but small portions of the county that are not easily accessible to these great thoroughfares of commercial intercourse.

The extensive and valuable hydraulic power which it possesses is already, to a considerable extent, profitably occupied, and it has become a manufacturing centre of great importance, and the facilities furnished by the several lines of public works for a rapid and cheap transit to market for the surplus products of its soil and manufactories, is steadily increasing its population and its wealth.

Its valuations will, therefore, require an annual revision, that it may bear its portion of taxes with other wealth accumulating counties.

The city of Utica, which contains 5,500 acres, is classed in the same manner as the other cities, and valued at the same price per lot as Auburn or Syracuse. The large amount of real estate in villages and corporations in various parts of the county, the Assessors have been unable to ascertain with a sufficient degree of accuracy, and they have estimated its value by the best light they could obtain.

Oswego County.

Oswego county is bounded on the east by parts of the counties of Lewis and Jefferson, south by Oneida lake and Onondaga county, west by part of the county of Cayuga and Lake Ontario, and north by the county of Jefferson. Its surface is rolling, at some places hilly. Only a small portion of the soil is adapted to winter wheat, but is most congenial to the spring grains, and to the dairy. It is a second class county, but not among the best of its class.

It has valuable hydraulic power, which at Oswego is extensively used, and from its location that city must become a commercial and manufacturing centre of increasing importance. The Oswego canal, and the rail-

road from Oswego to Syracuse, and a part of the Watertown railroad, cross portions of its territory and furnish abundant facilities for the developing of its resources. Its population and wealth will advance continually, but not sufficiently to require a revision oftener than once in two years.

Schuyler County.

Schuyler county is bounded on the east by Tompkins county, on the south by parts of Chemung and Steuben counties, on the west by Steuben county, and on the north by parts of the counties of Yates and Cayuga.

Its surface is broken and hilly and rolling. It lays nearly all in the winter wheat region, and its soil is such that upon a part of the county it can be profitably cultivated. The valley extending from the head of Seneca lake contains some of the finest lands for vineyards in the State, and the grape can be profitably cultivated in the county along the shores of the lake. It is a thriving, prosperous, second class county, and has abundant railroad and canal facilities for the developing of all its resources. It will gradually increase in population and wealth, but its valuations will not require a revision oftener than once in two or three years.

Steuben County.

Steuben county is bounded on the south by the State line of Pennsylvania, on the west by Allegany county and a part of Livingston, north by a part of Livingston and Yates, east by Chemung and Schuyler counties.

The surface is hilly and broken, and the general elevation of the hills such as to modify its agricultural productions. Its soil is adapted to the spring grains and to grass, but it is principally a grazing and dairy county. The land which was originally covered with heavy forest of pine and hemlock is being gradually cleared not only of the trees, but stumps, and it may be regarded as a thriving and prosperous county, its resources being developed by the railroads which traverse its territory in various directions, and by the Chemung canal which has its terminus in this county. It has considerable hydraulic power, but nothing that will make it a manufacturing centre of importance. Around Crooked lake, on its northeastern border, it has some excellent land for vineyards, and the cultivation of the grape is becoming an important branch of rural industry. Its valuations will require revision once in three or four years.

Tioga County.

Tioga county is bounded on the east by Broome county, south by the State line, west by Chemung county, and north by Tompkins and part of Cortland counties.

Its surface is broken and hilly. It has some level lands of first quality along the Susquehanna river, but its soil is generally adapted to grass and the spring grains, and its products are affected by the elevation of its hills. It is, as an agricultural county, only in the third class, being best adapted to the dairy. It has some hydraulic power, but nothing to ever make it a manufacturing county of importance. The railroad from Ithaca to Owego, traversing its territory from north to south, and the New York and Erie

railroad across its southern border, furnish excellent facilities for the development of all its resources.

It will gradually increase in population and wealth, but its valuations will not require a revision oftener than once in three or four years.

Tompkins County.

The county of Tompkins is bounded on the north by the county of Cayuga and part of the county of Seneca, on the east by Cortland county and part of the county of Broome, on the south by the county of Broome, and on the west by the county of Schuyler.

Its surface is hilly, and in its southern portion the hills attain such an elevation as to affect the products of the land. The northern portion on each side of the Cayuga lake, contains some good wheat lands, but in its general features it may be ranked as a second class county, the largest portion of its soil being adapted to the successful cultivation of spring grains, and to grazing.

It has a railroad running across its territory from north to south, and the navigable waters of the lake are also within its bounds. It possesses important hydraulic power, and considerable commercial advantages. It may be considered, however, an inland second class farming county, where population and wealth will increase slowly, and its value will not require an annual revision.

Wyoming County.

The county of Wyoming is bounded west by the county of Erie, north by the county of Genesee, east by the county of Livingston, and south by parts of the counties of Allegany and Cattaraugus. It is hilly and broken, and its general surface is so much above the tide level as to materially affect its climate and the profitable cultivation of its soil. The northeastern portion of the county is a fertile wheat soil. The whole county, however, can only be ranked as a second class county, being mainly devoted to stock and the dairy. It is very properly ranked as among the best and most productive in that class. It has the advantage of railroad facilities through a portion of its territory, which is remote from the markets upon other public improvements. Its commercial and manufacturing advantages are not good, and the population and wealth of the county must increase very slowly, and its value will not be materially enhanced for several years, and then only by the natural growth of its agricultural wealth.

Area, Population, Agricultural Condition, Routes of Commercial Traffic, Banking and Manufacturing Capital.

AREA.

This group contains in square miles, 14,270 of surface, or 34 per cent. of the whole area of the State, divided into:

Improved square miles	7,522
Unimproved do	6,670

Reduced to acres as follows:

Improved acres	4,814,360
Unimproved	4,268,555
Total acres	9,082,923

The proportion is of:

Improved, per cent	53
Unimproved, do	47

The improved acres to the unimproved, is equal to 53 improved to 47 unimproved.

POPULATION.

The aggregate population is:

Rural	552,546
Village	243,988
City	120 474
Total	917,008

The proportion of each class of the population to the other is:

Rural, percent	67
Village do	20
City do	13

Density of the population is:

Total population to total area is 65 persons per square mile, or one inhabitant to 10 acres of land

Of the rural population there are 39 to the square mile of the whole surface, or 16 acres of all the land to each person of rural population.

The aggregate rural population to the square mile of improved land is 72, or 9 acres to each individual.

The aggregate population to the aggregate improved square mile is 122 persons, or five acres to each person.

But the aggregate rural population to the square mile of improved land is 72, or 9 acres to each inhabitant.

The average number of improved acres in each farm is 54.

The cash value of farm stock and implements, as returned by the farmers to the State census marshals for 1855, was:

Cash value of farms	$247,237,660
do of stock	35,594,370
do of tools and implements	8,238,551
Total value of capital embarked in agriculture	$291,070,581

The average value of farms, stock, tools and implements per acre was:

Farms, per acre	$58 00
Stock, do	8 35
Tools and implements, per acre	1 93
	$68 28

Whole average farming capital invested in:

Farm	$3,132 00
Stock	482 00
Implements	104 00
Total invested	$3,718 00

The aggregate of all the real estate of the group is:

Farm lands	$247,237,660
Village and corporation	38,270,000
City	36,150,000
Total value of real estate	$321,657,660

The incorporated cities are Buffalo, Utica and Oswego.

Large towns are Watertown, Elmira and Rome.

Both cities and large towns have the elements of progressive increase, from commerce or manufacturing facilities, and will be important centres of increasing population and wealth.

The aggregate miles of route for commercial traffic is:

Railroads	948
Canals and lakes	372
Total	1,320

The proportion of square miles of area to one mile of traffic route, is 1 mile of route to 11 square miles of area, or as one to eleven.

The valuation of real estate by the State Assessors, and of the personal estate by the town assessors, whereon was based the report of the Board of Equalization for the years 1862 and 1863, are as follows:

Farm lands	$182,368,331
Village and corporations	38,270,000
City	36,150,000
Total value of real estate	$256,788,331
Personal estate	28,653,161
Total value of real and personal estate	$285,441,492

The details are tabulated and shown in table B, of the appendix to the group.

Banking capital in 1861, was $10,199,430.

The details are tabulated in table C, of the appendix to this group.

DISTRIBUTION OF FARM LANDS.

Pasture, acres	1,775,600
Meadow	1,275,419
Total in grass, acres	3,051,019

The proportion of grass to the whole area of improved land is:

Pasture, percent	37
Meadow, do	27
Total percentage of grass	64

The proportion, therefore, of grass, is 64 acres in the 100, either in pasture or meadow, and 36 acres in cultivated crops.

Spring wheat, acres		101,912
Winter wheat, acres		140,231
Oats, acres		495,306
Rye, acres		29,731
Barley, acres		84,093
Total acres in white straw crops		851,273
Buckwheat	80,735	
Corn	225,348	
Peas	17,281	
Beans	3,977	
Total acres in fodder crops	327,341	327,341

Potatoes	62,846	
Turnips	1,595	
Total acres in root crops	64,441	64,441
Flax	1,505	
Hops	2,591	
Market gardens	1,164	
Total acres in commercial crops	5,260	5,260
Total acres in cultivated crops, exclusive of pasture and meadow		1,248,047

which is 25 per cent. of the improved lands. But this leaves 11 per cent. of the improved land unaccounted for; a large portion of that may be included in orchards and land occupied by buildings, and some allowance for errors in census.

The proportion under cultivation in the group, to the whole improved land of the State is per cent.

VEGETABLE PRODUCTS AND THEIR VALUE.

Hay, tons	1,180,752	$9,446,016
Grass seed, bush	51,505	103,010
Spring wheat, bush	1,175,440	1,469,300
Winter wheat, do	1,417,626	1,772,033
Oats do	10,178,955	3,536,686
Rye do	320,090	256,072
Barley do	985,323	788,266
Buckwheat do	780,456	390,228
Corn do	6,009,768	4,807,814
Peas do	246,147	196,917
Beans do	64,816	129,632
Total grain product, bush	21,178,631	
Potatoes, bush	4,528,056	1,132,014
Turnips do	240,959	24,096
Total roots	4,769,015	
Flax seed, bush	10,951	16,427
Flax lint, lbs	410,042	41,004
Hops, lbs	2,220,377	222,037
Apples, bush	5,443,202	544,320
Cider, bbls	89,860	89,860
Market gardens, value of products		133,948
Total value of vegetable products		$25,693,580

The aggregate grain product is at the rate of 4.4 bushels per acre, of the land upon which it was grown

The average annual value of the vegetable products of the improved per acre is $5.33.

ANIMALS.

Neat cattle, total number		787,674
Under one year	128,816	
Over one year, exclusive of working oxen and cows	237,903	
Working oxen	52,005	
Cows	448,623	
Killed for beef	59,242	
Horses		188,769
Mules		296
Sheep	1,087,033	
Sheep, shorn	866,951	
Reducing the sheep to an equivalent of cattle or horses, being regarded as seven to one and they are equal to cattle		155,290
Whole number of neat cattle, or their equivalent in sheep and horses		1,132,029

The aggregate of improved land to cattle is one head of cattle to four acres of land, and to each cow eleven acres.

The proportion of cows to aggregate stock is 40 per cent. To all the cows in the State it is 40 per cent., but of the neat cattle of the group the cows are 57 per cent.

Swine under six months	125,353
Swine over six months	172,349
Total swine	297,702

ANIMAL PRODUCTS WITH THEIR VALUE.

Wool, lbs	2,954,348 at 40c	$1,181,739
Butter, lbs	38,396,343 at 15c	5,759,851
Cheese, lbs	20,728,651 at 10c	2,072,865
Milk sold, galls	932,781 at 8c	746,224
Poultry, value sold	$239,650	
Eggs, do	348,595	
Total value poultry and products	$588,245	588,245
Total value of animal products, exclusive of animals sold		$10,348,924
To this sum should be added for the value of swine over six months old, which represents the surplus sold, 172,349 at $10 per head		$1,723,490
Also the value of cattle killed, as they would be the product of the locality, 59,242 head at $20		1,184,840
One-third of the cattle over one year old may be assumed as sold, exclusive of those killed for beef, viz: 79,967 head, at $20 per head		1,599,340
One-tenth of the horses are assumed to be sold annually, viz: 18,876, at $30 per head		566,280
The number of sheep sold annually is equal to a fourth part of the flock, viz: 271,758 head, at $2.00 per head		543,516
Total value of annual surplus of animals and animal products		$15,966,390

As this is not purely a dairy group, but one of mixed husbandry, where, in addition to the dairy, grain-growing may be practiced to a profitable extent, and which, by proper modes of agriculture, may be considerably increased, there is to be added to the animal products the surplus of grain products, as represented in wheat, rye and barley, as well as the products of flax, grass-seed and hops.

All the other vegetable products are represented in the animal products.

The aggregate surplus of annual products of its agricultural lands will be as follows, viz:

Aggregate animal products	$15,966,390
Spring wheat, value	1,469,300
Winter do do	1,772,033
Rye, do	256,072
Barley, do	788,266
Grass seed, do	103,010
Flax seed, do	16,427
Lint, do	41,004
Hops, do	222,037
Total surplus products of agriculture	$20,635,139

Which would be $4.29 per acre for all the improved land of the group.

The average number of acres of improved land to each farm being 54, it follows that the average annual surplus of the farm is $231.66, or about 6½ per cent. interest upon the capital invested.

AGRICULTURE.

The description of the topography, and the geology or lithological cha-

racter of its strata, marks the characteristics of its agricultural capacity. Along the indentations in its dividing ridge of hills, the calcareous nature of the drift has imparted to the soil the elements for growing winter wheat profitably. But these locations are small in extent and generally require thorough under-drainage before the soil can be made available.

The condition of its surface, however, is that which makes it admirably calculated for a great dairy district, and as such, it is mainly employed. There is probably not in the northern States of the Union, so large a continuous tract of country that presents in the aggregate so much prime dairying lands as this, and there is none that can rival it in the quality and quantity of its dairy products. It is the great central dairying region of the Union.

Of its area which is now unimproved, viz.: 6,670 square miles or over 4,000,000 of acres, there is not over 1,000,000 of acres that is not capable, when cleared of its present forests, of being converted into profitable pasture or meadow. The time is rapidly approaching when every tree that ought to be cut down will have disappeared, and the whole region will become one vast dairy region, and literally its thousand hills will be covered with cattle.

The dairy is the true wealth of this district, and to that the farmers should bend all their energies. The hilly nature of the land renders its cultivation difficult, and points out the true method whereby the land shall be made profitable. Grass is here pre-eminently the best crop for the farmer, and it should be his constant study to make two blades of grass grow where only one grows now. To this end, grain should be grown only as an exceptional crop, secondary to the increased productiveness of meadow and pasture. The farmers of this region are favored beyond those of the 3d and 4th groups, by having a more genial soil and climate, and greater command of manurial resources, and a wider field for its useful application. There are few farms where roots may not be grown profitably, fewer where flax cannot be grown to advantage; and with flax seed and roots, the manure may be enriched indefinitely; and in no portion of the State will its application produce so marked results, for here is a soil already moderately fertile, and the farmer has only to conserve those latent qualities by adding to them constantly, to possess a soil of great fertility, and capable of producing rich rewards for his care. In this district, more than in any other, a systematic course of under-draining must be established; for there is little land that does not require it, and is not of sufficient value to warrant the expense. On tens of thousands of acres, a judicious use of the plow in making open drains, will render valuable the land now waste in swamps or stagnant pools. The tops of nearly all the ridges or hills are elevated plateaux, often of some hundreds of acres, so level that the water is only slowly discharged by evaporation or soaking into the adjoining soil, and rendering wet and productive of only wild grass and rushes; yet a small outlay of time and labor, by making ditches to the slope of the hills would render these very waste and worse than waste places, the most fertile of the district. But when open ditches cannot be made to accomplish the object, the usual mode of tile or pipe-draining must be

adopted, and open ditches should be tolerated only where, from the nature of the land, they are the best.

By a system of pipe or underdraining judiciously executed, the product of the soil in this whole district may be nearly or quite doubled.

Let us see what would then be the condition of the country in the produce of animals. It now produces 38,396,343 pounds of butter, and 20,728,651 pounds of cheese, and 932,781 gallons of milk. The cows are 448,623.

Allowing three and a half gallons of milk to a pound of butter, or one gallon to a pound of cheese, and the aggregate of milk produced averages only 332 gallons per cow, not half the quantity that a well kept cow is capable of producing. The soil, with proper management, can be made to produce the necessary food for doubling this product. Forty-two per cent. of all the cows in the State are in this group, and 42 per cent. of the butter, and 61 per cent. of the cheese is also produced here. These facts indicate the tendency of the agriculture of the district, and further examinations will show, by the increased production of the cheese and butter, that the farmers are steadily pursuing the course indicated by their locality.

The city and village population will rapidly increase in this group, but the rural will only remain stationary for a few years, and then decrease.

Group V.

TABLE A.—*Agricultural Statistics.*

COUNTIES.	Acres.		Cash Value.			Acres in pasture.
	Improved.	Unimproved.	Of farms.	Of stock.	Of tools and implements.	
Allegany	280,863	354,269	$12,352,363	$2,081,738	575,936	116,608
Broome	198,839	205,208	18,872,397	1,505,679	372,625	71,556
Cattaraugus	266,435	432,620	10,956,344	1,922,598	439,162	109,719
Chautauqua	360,110	294,145	17,022,474	2,821,700	610,560	122,376
Chemung	120,219	110,385	6,898,846	841,557	214,911	33,238
Chenango	347,828	182,936	13,184,452	2,431,662	569,087	177,567
Cortland	194,736	113,662	8,569,671	1,571,914	357,893	91,583
Erie	340,307	253,344	24,479,408	2,718,053	745,059	114,813
Jefferson	465,222	251,291	18,718,492	2,992,793	343,410	126,434
Lewis	184,540	497,145	7,519,002	1,102,582	287,903	71,496
Madison	277,393	111,505	14,353,775	2,253,862	465,057	113,463
Oneida	435,800	286,594	24,294,881	3,409,506	764,667	187,860
Oswego	244,126	328,047	13,438,725	2,058,581	496,629	93,511
Schuyler	134,336	63,000	7,428,825	974,358	252,823	36,663
Steuben	361,450	438,250	17,994,630	2,406,152	680,403	102,824
Tioga	154,894	138,423	7,593,564	1,206,835	289,054	53,400
Tompkins	205,616	84,963	11,656,054	1,581,130	379,635	62,692
Wyoming	241,654	122,764	11,903,817	1,714,170	393,737	90,196
Total	4,814,368	4,268,555	$247,237,660	35,594,370	8,238,551	1,776,000

A.—Continued.

COUNTIES.	Meadow.			Spring Wheat.		Winter Wheat.		Oats.		Rye.		Barley.	
	Acres.	Tons of hay.	Bush. of grass seed.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres sown.	Bushels harvested.
Allegâny	76,173	54,637	2,117	6,594	56,422	6,964	82,929	34,845	665,490	338	2,834	2,102	28,454
Broome	58,078	53,685	1,676	2,153	8,121	2,852	11,927	18,901	466,870	3,690	20,546	214	2,337
Cattaraugus	75,208	62,546	1,812	5,395	57,278	1,923	21,721	31,778	697,670	226	2,373	942	14,095
Chautauqua	103,180	105,672	2,286	7,011	78,636	5,366	66,249	25,782	539,765	200	2,808	1,224	19,656
Chemung	24,840	24,941	866	2,140	18,624	8,781	63,754	17,280	473,469	731	3,558	1,100	23,862
Chenango	113,840	117,370	2,038	1,814	20,283	897	4,560	26,704	564,242	1,187	14,329	1,138	22,229
Cortland	59,172	56,769	958	2,102	24,361	579	4,696	17,498	382,786	351	4,172	2,402	45,665
Erie	93,053	98,011	3,720	4,505	46,913	16,907	238,812	35,983	724,747	1,822	24,979	3,661	57,256
Jefferson	122,491	98,575	13,601	29,687	428,672	6,303	70,509	38,375	456,230	7,775	99,391	28,262	392,684
Lewis	57,238	51,802	1,746	4,603	59,940	317	3,845	14,037	295,445	1,151	11,383	1,992	37,513
Madison	70,545	68,263	1,155	4,344	52,777	4,459	29,320	25,977	571,637	84	1,477	10,456	197,231
Oneida	119,745	124,933	8,700	3,396	41,883	3,177	20,439	39,169	975,800	2,021	24,121	7,185	137,430
Oswego	63,501	58,138	1,454	3,914	44,300	1,544	12,596	22,674	535,432	3,733	45,557	1,504	28,054
Schuyler	25,141	17,996	1,392	5,612	33,139	11,803	80,431	17,122	354,247	694	6,168	5,063	60,507
Steuben	76,401	58,749	1,925	10,821	82,014	33,768	219,590	51,169	711,307	1,130	10,212	8,429	78,873
Tioga	38,036	38,401	2,452	1,339	11,938	4,351	19,355	19,493	452,978	2,668	25,884	377	5,925
Tompkins	39,493	31,843	2,091	3,182	32,642	11,040	84,395	34,142	812,983	1,719	17,521	3,753	65,295
Wyoming	59,184	58,421	1,536	3,300	37,497	19,200	382,498	24,377	496,837	211	2,777	4,289	68,267
Total	1,275,419	1,180,752	51,505	101,912	1,175,440	140,231	1,417,626	495,306	10,178,935	29,731	320,090	84,093	985,333

A.—Continued.

COUNTIES.	Buckwheat.		Corn.		Potatoes.		Peas.		Beans.	
	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.
Allegany	4,956	39,298	6,800	189,588	3,057	206,058	1,687	22,844	182	3,174
Broome	6,932	73,214	8,101	214,998	2,388	160,420	57	932	92	949
Cattaraugus	2,320	26,183	10,271	309,762	3,597	300,245	938	14,442	242	4,496
Chautauqua	1,055	9,664	19,761	558,507	3,723	282,451	536	7,693	218	4,038
Chemung	5,902	69,046	7,200	239,285	1,190	131,291	89	1,360	56	1,859
Chenango	4,238	50,304	10,745	354,480	3,179	270,542	236	4,618	102	2,763
Cortland	2,623	28,115	7,501	240,203	1,857	155,389	505	9,527	96	1,726
Erie	2,445	24,558	18,627	483,228	7,452	445,350	929	15,321	349	6,124
Jefferson	965	5,909	18,486	321,779	5,154	289,031	4,536	63,338	389	4,281
Lewis	1,007	10,443	4,616	92,398	3,295	243,841	856	12,978	72	1,030
Madison	1,396	13,853	14,920	449,583	2,943	224,278	1,147	20,973	276	4,836
Oneida	4,355	54,767	26,573	732,294	7,678	624,648	812	12,912	472	7,770
Oswego	3,783	31,605	20,919	503,812	5,584	391,912	719	11,116	280	4,326
Schuyler	7,242	67,523	6,775	160,780	1,259	81,106	129	1,710	176	1,931
Steuben	13,054	89,990	12,796	292,689	4,007	255,938	2,646	25,006	245	2,686
Tioga	7,006	91,402	7,839	260,174	1,843	150,518	314	3,992	127	2,495
Tompkins	9,296	74,305	14,737	373,202	1,554	111,106	312	4,659	184	2,100
Wyoming	2,150	20,277	8,681	234,006	3,086	203,932	933	13,326	429	8,232
Total	80,735	780,456	225,348	6,009,768	62,846	4,528,056	17,281	246,147	3,977	64,816

A.—Continued.

COUNTIES.	Turnips.		Flax.			Hops.		Apple Orchards.		Market Gardens.	
	Acres sown.	Bushels harvested.	Acres sown.	Pounds of lint.	Bushels of seed.	Acres planted.	Pounds harvested.	Bushels of apples.	Barrels of cider.	Acres cultivated.	Value of products.
Allegany	126	22,075	34	899	205	7	2,768	214,136	2,983	24	$2,030
Broome	92	12,375	8	478	35	35	21,808	224,463	4,747	33	1,340
Cattaraugus	142	26,104	8	2,738	58	2	488	177,173	1,257	7	463
Chautauqua	93	20,360	42	4,584	302	5	2,416	368,115	4,524	57	5,485
Chemung	26	3,964	6	130	66	.....	.....	107,364	2,961	25	4,948
Chenango	61	9,732	36	16,636	203	220	163,332	553,554	7,559	1	57
Cortland	63	11,724	237	58,269	2,173	11	2,037	351,975	3,738	2	397
Erie	154	20,987	34	5,026	276	4	2,862	266,195	6,084	481	39,130
Jefferson	40	4,112	68	12,066	760	38	28,995	215,431	3,459	53	12,790
Lewis	55	5,830	219	65,782	1,566	25	8,870	22,198	1,451	1	115
Madison	28	2,948	92	102,581	735	1,490	1,312,308	531,677	7,417	20	1,810
Oneida	155	25,005	140	6,635	1,233	675	616,054	634,262	12,735	246	49,258
Oswego	142	27,252	103	37,109	749	45	29,206	425,915	8,105	93	11,232
Schuyler	31	5,734	73	8,058	420	1	730	143,229	3,212	5	465
Steuben	202	22,545	108	1,777	306	13	8,649	297,289	4,580	101	3,649
Tioga	45	7,352	18	712	140	2	1,200	169,183	4,359	2	325
Tompkins	27	5,133	209	79,932	1,706	1	1,138	417,757	6,172	10	217
Wyoming	113	7,727	70	6,630	518	17	17,526	323,290	4,517	3	237
Total	1,595	240,959	1,505	410,042	10,951	2,591	2,220,377	5,443,202	89,860	1,164	$133,948

A.—Continued.

COUNTIES.	Neat Cattle.						Pounds of butter.	Pounds of cheese.	Gallons of milk sold.	No. of horses.
	Total.	Under 1 year.	Over 1 yr. ex've of oxen & cows.	Oxen.	Cows.	Number killed.				
Allegany	47,382	7,913	17,018	3,392	19,009	2,550	1,700,755	1,044,977	10,803	11,223
Broome	37,544	6,210	10,687	3,531	17,116	1,619	1,753,417	40,896	89,122	5,998
Cattaraugus	58,489	10,417	20,202	4,137	23,633	2,170	1,957,183	1,717,484	6,200	9,497
Chautauqua	76,890	12,851	23,478	4,515	56,046	3,830	3,389,837	1,198,361	56,358	13,047
Chemung	20,900	3,496	6,203	1,510	9,690	1,938	924,645	7,861	52,820	4,856
Chenango	68,391	10,162	17,403	3,887	36,940	2,176	3,990,564	1,212,544	2,122	10,971
Cortland	37,671	5,304	8,990	1,709	21,668	1,860	2,379,257	708,679	13,133	7,410
Erie	55,439	7,624	14,190	3,794	29,831	5,320	1,866,132	2,038,392	1,173,085	16,983
Jefferson	79,249	10,271	16,984	2,522	49,472	4,235	3,949,608	2,819,459	192,192	17,059
Lewis	29,748	2,683	5,491	2,423	19,151	1,247	1,575,515	1,896,741	6,795	5,097
Madison	44,924	5,906	13,097	1,874	24,067	2,740	1,840,300	2,087,594	31,026	11,753
Oneida	77,832	4,560	17,002	3,476	47,794	15,071	3,912,176	3,311,114	184,108	17,398
Oswego	42,172	5,933	11,163	3,093	21,983	4,637	2,036,174	975,461	116,425	12,398
Schuyler	19,004	3,783	6,417	1,128	7,676	1,126	798,953	32,168	125	5,700
Steuben	52,483	9,915	17,933	4,351	20,284	3,837	1,976,129	203,329	18,756	13,900
Tioga	29,664	5,297	9,090	2,323	12,954	1,439	1,365,783	50,357	2,567	5,678
Tompkins	30,847	5,140	9,469	1,666	14,572	1,440	1,645,947	60,128	36,590	9,443
Wyoming	39,048	6,351	13,286	2,674	16,737	2,007	1,333,948	823,105	40,554	10,358
Total	787,674	123,816	237,903	52,005	448,623	59,242	38,396,343	20,728,651	932,781	188,769

A.—Continued.

COUNTIES.	Mules.	Swine.		Sheep.			Poultry.		Gypsum.	
		Under 6 months.	Over 6 months.	No. of sheep.	No. of fleeces shorn.	Pounds of wool.	Value of poultry.	Value of eggs.	Tons.	Value.
Allegany	36	4,963	8,185	104,800	80,416	272,622	$7,819	$11,218	422	$2,810
Broome	7	5,821	6,330	40,894	27,713	86,324	23,389	45,062	837	4,409
Cattaraugus	11	5,376	8,458	59,735	41,080	131,000	10,131	13,295	51	526
Chautauqua	5	9,156	11,950	90,154	63,811	217,024	15,627	19,609	241	1,982
Chemung	6	4,097	5,756	21,364	12,909	40,765	3,802	6,689	926	2,874
Chenango	10	9,094	8,998	85,923	66,050	220,192	20,070	21,781	1,414	6,129
Cortland	27	6,000	6,302	41,321	34,470	120,793	8,402	16,482	528	2,558
Erie	10	7,342	17,449	65,085	48,938	164,694	26,263	30,135	545	2,360
Jefferson	20	11,026	12,301	63,401	33,913	118,372	13,348	19,300	1,081	4,016
Lewis	9	3,865	4,488	10,086	7,624	27,046	4,701	2,671	157	1,003
Madison	32	8,180	8,615	66,547	76,910	261,904	14,454	23,878	1,618	5,816
Oneida	34	13,417	17,811	50,841	39,215	137,327	22,972	31,823	1,005	4,067
Oswego	23	7,970	13,866	36,088	22,418	79,446	13,161	26,758	497	2,095
Schuyler	4	4,380	5,072	48,918	40,790	152,554	7,263	8,961	1,493	6,550
Steuben	40	8,873	15,281	111,353	101,484	336,334	10,636	14,678	2,540	12,226
Tioga	13	4,915	6,333	36,152	26,500	80,144	6,490	11,235	814	3,987
Tompkins	3	6,608	7,750	61,036	47,197	160,834	20,734	31,205	1,303	4,825
Wyoming	6	4,270	7,404	93,365	96,413	347,973	10,388	13,815	649	3,400
Total	296	125,353	172,349	1,087,033	866,951	2,954,348	$239,650	$348,595	16,121	$71,633

TABLE B.

Digest of Facts by State Assessors for Board of Equalization.

COUNTIES.	Whole number of acres taxed as reported by supervisors.	Price of farm lands per acre.	Aggregate valuation of farm lands.	State Assessors' valuation of real estate in villages and of corporations.	State Assessors' valuation of the real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate.
Allegany	641,093	$15 00	$9,616,395	$1,300,000	.....	$10,916,395	$754,257
Broome	431,081	18 00	7,756,458	2,700,000	.....	10,459,458	854,585
Cattaraugus	801,302	11 00	8,114,322	1,500,000	.....	10,314,322	419,282
Chautauqua	650,613	20 00	13,012,260	3,000,000	.....	16,012,260	1,791,236
Chemung	250,131	22 00	5,502,926	2,500,000	.....	8,002,926	836,058
Chenango	543,910	18 00	9,790,380	1,500,000	.....	11,290,380	1,606,301
Cortland	309,338	20 00	6,186,760	1,400,000	.....	7,586,760	623,515
Erie	614,171	28 00	17,205,188	4,000,000	$30,000,000	51,205,188	6,605,505
Jefferson	758,126	20 00	14,662,520	3,000,000	.....	17,662,520	2,790,116
Lewis	713,651	8 00	5,709,208	300,000	.....	6,009,208	592,074
Madison	388,971	30 00	11,669,160	2,570,000	.....	14,169,160	2,229,590
Oneida	735,612	28 00	20,507,136	4,000,000	3,150,000	27,657,136	3,067,196
Oswego	462,399	18 00	8,323,182	3,000,000	3,000,000	13,323,182	1,834,210
Schuyler	200,597	28 00	6,616,716	1,000,000	.....	7,616,716	346,250
Steuben	835,000	14 00	11,690,000	2,000,000	.....	13,690,000	2,253,921
Tioga	309,890	20 00	6,197,800	2,000,000	.....	8,197,800	873,487
Tompkins	292,164	30 00	8,764,920	1,500,000	.....	10,264,920	1,333,211
Wyoming	363,000	30 00	11,040,000	1,000,000	.....	12,040,000	838,368
Total	9,316,049	.....	$182,368,331	$38,270,000	$36,150,000	$256,418,331	$28,653,162

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital; also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, October 1st, 1861.	Local assessors' valuation of real estate, as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal est., as returned by supervisors, 1861.	Rate per capita of personal est. over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, 1861.
Allegany	41,881	$100 000	$7,330,750	$2 00	18 00	16 00	198 00	$175 00
Broome	35,906	400,000	6,403,490	11 00	24 00	13 00	225 00	178 00
Cattaraugus	43,886	.....	6,808,871	.....	9 00	9 00	182 00	155 00
Chautauqua	58,418	536,750	12,512,403	9 00	31 00	22 00	215 00	214 00
Chemung	26,917	350,000	5,900,394	13 00	31 00	18 00	231 00	222 00
Chenango	40,934	275,000	9,111,955	6 00	39 00	33 00	200 00	220 00
Cortland	26,294	100,000	5,159,395	2 00	24 00	22 00	227 00	193 00
Erie	141,971	2,438,850	36,629,213	17 00	47 00	30 00	282 00	259 00
Jefferson	69,825	791,900	12,365,049	11 00	39 00	28 00	197 00	178 00
Lewis	28,580	102,450	3,581,769	4 00	21 00	17 00	168 00	126 00
Madison	43,545	735,000	9,013,379	17 00	51 00	34 00	254 00	230 00
Oneida	105,201	2,115,380	13,432,035	20 00	29 00	9 00	206 00	127 00
Oswego	75,958	1,103,000	12,013,716	14 00	24 00	10 00	134 00	158 00
Schuyler	18,840	50,000	4,062,468	3 00	18 00	16 00	315 00	216 00
Steuben	66,689	270,000	12,126,697	4 00	34 00	30 00	160 00	182 00
Tioga	28,748	406,100	4,559,675	14 00	34 00	20 00	223 00	159 00
Tompkins	31,409	340,000	5,729,339	11 00	43 00	32 00	255 00	180 00
Wyoming	31,968	85,000	7,402,896	3 00	26 00	23 00	294 00	232 00
Total	916,950	$10,199,430	$174,140,394	.....	.....	.....	.....	.....

CHAPTER X.

GROUP VI: Counties—Boundaries—Topography—Prof. Hall's Description—Counties Described—Cayuga, Genesee, Livingston, Monroe, Niagara, Onondaga, Ontario, Orleans, Seneca, Wayne, Yates—Area—Population—Capital in Agriculture—Value of Real and Personal Estate—Aggregate Valuation Personal and Real—Distribution of Land—Grass—Tillage—Vegetable Products and Value—Animals—Products—Value—Agriculture—Grain Growing—Appendix—Agricultural Statistics—Assessed Value—Financial.

GROUP VI.

Counties.

Cayuga, Genesee, Livingston, Monroe, Niagara, Onondaga, Ontario, Orleans, Seneca, Wayne, Yates—11.

BOUNDARIES, &C.

This group is bounded on the north by Lake Ontario, west by Niagara river, south by the north line of the counties of Erie, Wyoming, Steuben, Schuyler, Tompkins and Cortland, east by parts of the counties of Madison and Oswego. That part of the counties of Wyoming and Erie, which lies north of a line drawn from the southwest angle of Livingston county northwesterly to the city of Buffalo, properly belongs to this group; but as counties cannot be divided, it is returned in the other groups.

TOPOGRAPHY.

In its general appearance it is level or gently undulating, rising into hills only on its southern boundary, where it approaches the higher members of the New York system rocks, in the adjoining group. It lies wholly within the Lake Ontario basin, as its drainage is entirely into that lake.

It occupies nearly the whole of the limestone stratas below the Hamilton group of the New York system.

Its soil is therefore highly calcareous, of unsurpassed fertility, and may be ranked as a first class soil. Its general elevation is two hundred to five hundred feet above tide. Its climate and soil are favorable to a high condition of agriculture, while its canals, lakes and railroads ensure a cheap transit of its produce to ready markets, and induce a state of prosperity highly advantageous to the employment of an immense manufacturing capital, and a rapid increase of its population and wealth.

It is a grain and fruit producing region. The apple, peach and pear flourish well here, and along the margins of the several inland lakes for a breadth of from half a mile to a mile there is some of the finest lands for the cultivation of the vine of any in the Union, and already vineyards have assumed a prominence in the agriculture of the group.

The same cause which so modified the condition of the surface of the last group, which lies mostly to the south of this, was still more powerfully felt here. More than a thousand feet of rock which lay above the highest strata of limestone in this group has been worn away, and a level country when looked at from the north, presenting a gradual southern elevation, reached by terraces of varying height.

Prof. Hall* thus describes the topographical features of this group, and

* Natural History of New York.

Comstock & Cassidy, Albany N Y

Ontario or Wheat

GROUP 6.

Comstock & Cassidy, Albany N.Y.

as it is affected by its geology; his remarks are reproduced entire, so far as they are pertinent; he says: "Bordering Lake Ontario on the south is a low plateau, gradually rising to the south for a distance of from four to eight miles, when we abruptly ascend a terrace which at its western extremity attains a height of two hundred feet, but which slopes gently down almost to the general level further east. From the top of this terrace we pass over a broad plateau of nearly level country, slightly depressed towards the centre, but rising gently again to the south, till we come to the base of a second terrace, having a general height of sixty feet or more above the country on the north. These two terraces correspond with the out crop of the two great limestone formations, the southern one extending throughout the State, forming a prominent feature from the Hudson to the Niagara river. Beyond the terrace last mentioned, the country is level and generally even for several miles, when we commence a gradual ascent to higher ground. Here, however, there is no definite line bounding the southern extension, as in the case of the two terraces, but the outline is irregular, projecting in one part and receding in another. We find ourselves upon the margin of a country composed of hills and valleys, having no general direction other than that given by the water courses." This hilly country generally forms the southern boundary of the group, though it may occupy a portion of its southern limits, with its less fertile hills and valleys.

BRIEF DESCRIPTION OF COUNTIES WITH REFERENCE TO THEIR PRESENT AND FUTURE VALUATION.

Cayuga County.

The county of Cayuga is bounded on the north by Lake Ontario, on the east by parts of the counties of Oswego, Onondaga and Cortland, on the south by Tompkins, on the west by the county of Wayne, part of the county of Seneca and Cayuga lake.

It extends entirely across the wheat lands of the wheat region, and embraces portions of the second class lands on its south-eastern bounds. Its surface is generally undulating, and in a large portion the soil fertile, and well adapted to the growth of winter wheat, or to the successful cultivation of spring grains and to grazing.

It has extensive hydraulic power, which to a considerable extent is profitably improved, and is creating an extensive manufacturing centre. Its great advantages, in regard to the canals and numerous railroads, and developing the hydraulic power and its manufacturing capacities, is rapidly increasing its population and wealth, making one of the important inland counties whose valuations will require annual adjustment. The presence of one of the State prisons in the county adds sensibly to its increasing wealth.

It should be remarked in connection with the farming lands of this county, that the marshes occupy a considerable tract which, until drained, are productive of no income to the owners and cannot be made available for public revenue. When properly drained, however, the aggregate value of the farm lands of the county will be materially enhanced.

Genesee County.

The county of Genesee is bounded west by Erie county, north by Orleans, east by Livingston and Monroe, south by Wyoming. It is situated on the southern limits of the wheat region, nearly one-third of its territory bounding upon Wyoming, being properly included in the second class lands. The surface is gently undulating, except on its extreme southern border, where it is more hilly. It has some valuable hydraulic power, but it is not sufficient to warrant any important manufacturing town. Its public improvements consist in railroads, which traverse it in various directions, and help, by the facilities thus furnished its farmers for marketing their produce, to make it a thriving county. Its population, however, will increase but slowly, and its increase in wealth will not be rapid. Two-thirds of the county, embracing the middle and north portions, may be classed as first quality, where the soil is admirably calculated for the profitable cultivation of winter wheat. In the southern third, winter wheat can be grown to a greater or less extent; but as a general rule, the soil is better adapted to the spring grains, and to grazing. It has no important commercial or manufacturing facilities.

Livingston County.

The county of Livingston is bounded north by the county of Monroe, east by the county of Ontario, south by parts of the counties of Allegany and Steuben, and west by parts of the counties of Genesee and Wyoming. The southern portion of the county is hilly, and a small part of it is within the range of second class lands. By far the largest portion of the county, however, is of the very first quality of land, its soil being well adapted to the growth of winter wheat. Few, if any counties in the State have so great a variety of first class lands, adapted to the profitable cultivation of all the grains and to the production of the grasses at the same time.

It has comparatively little capacity for profitable manufacturing; but it has, in addition to the Genesee Valley canal, which traverses it from north to south, lines of railroads through it, both east and west and north and south. Its population and wealth will continue to increase, but not as rapidly as those counties which have larger manufacturing centres. But it will increase more rapidly than the counties immediately joining it on the west or south.

Monroe County.

The county of Monroe is bounded north by Lake Ontario, east by part of the counties of Wayne and Ontario, south by the county of Livingston, and west by parts of the counties of Genesee and Orleans. It lies within the wheat-land district. The surface is generally undulating, and the soil generally of great fertility. It is adapted to the cultivation of winter wheat and successful fruit growing. It is, therefore, one of the first class counties in regard to its agricultural capacities.

The Genesee river furnishes superior manufacturing advantages; and the city of Rochester is now extensively engaged in manufacturing, and will ultimately become a manufacturing center of great importance. Its

commercial advantages are developed by the Erie and Genesee valley canals, and by various lines of railroads traversing its whole territory, furnishing easy access to good markets for the abundant products of its fertile soil, as well as the finished products of its manufactures.

The county will, therefore, increase in population and wealth annually, and to such an extent as to require an annual revision of its value.

Niagara County.

The county of Niagara is in the northwest angle of the State, bounded on the west by the Niagara river, on the North by Lake Ontario, on the east by the county of Orleans, and on the south by the county of Erie. It lies entirely within the winter wheat region, its soil being peculiarly adapted to the successful cultivation of that cereal. It ranks in its agricultural capacity with the very best counties in the State, and is a first class county in regard to the productiveness of its soil.

The hydraulic power within its bounds is immense, especially that which is furnished by the Niagara river at the falls of Niagara, and at no distant day must add largely to its population and wealth.

The Erie canal and a branch of the Central railroad run through the whole county from west to east, and furnish ample facilities for marketing its surplus agricultural and manufactured products. Its commercial advantages are such that, with its genial soil, it must continually increase in population and value, and its valuations cannot be safely fixed for more than one or two years. They should be revised annually.

Onondaga County.

The county of Onondaga is bounded on the North by Oswego county, on the east by the county of Madison, on the south by Cortland county, and on the west by Cayuga county.

The northern portion is comparatively level, and abounds with several large swamps. The middle is rolling and the south hilly. The soil generally is fertile and productive. The central portion from east to west is admirably calculated for the cultivation of wheat. The southern portion is well adapted to the spring grains, and to grazing and the dairy. As an agricultural county it is equal in its general productiveness to many of the first class counties of which it is a member.

Its hydraulic power is large and important, and is already being improved to considerable extent. The canals and railroads traversing its territory are ample for the developing of its resources, and it is rapidly becoming a manufacturing centre of increasing importance.

In its brine springs and salt manufacture it has a permanent source of wealth, and its population and wealth are rapidly increasing, and its valuations will require an annual revision.

The city of Syracuse has about 5,000 acres in its bounds which are taxable, aside from the lands reserved for salt manufacturing purposes.

The lands have been rated at the prices of those of Auburn, neither of the cities being classed as commercial towns, nor the lands valued at the rate adopted in those cities which combine manufacturing with commercial advantages.

Ontario County.

The county of Ontario is bounded on the north by the county of Wayne and part of Monroe, on the east by the county of Seneca, on the south by the county of Yates and part of the county of Steuben, and on the west by the county of Livingston and part of the county of Monroe.

The surface is undulating generally, except on the southwest corner; it is more or less hilly. Nearly three-quarters of the county is within the wheat region, and the soil well adapted to the successful growth of that plant. The southwestern portion of the county is composed of second quality land, though there is but a small portion of it which does not admit of successful cultivation.

The county is traversed by railroads in various directions, and the proximity of the northern portions to the Erie canal gives it excellent means of transportation for its products to market. Its commercial or manufacturing advantages are not such as to create any large centres of either; but it is a thriving, prosperous inland county, mainly devoted to agricultural pursuits, and its population and wealth do not increase with much rapidity; still its general value is increasing to such an extent as to warrant an annual revision.

Orleans County.

The county of Orleans is bounded on the north by Lake Ontario, east by Monroe county, south by the county of Genesee, and west by the county of Niagara. It lies entirely in the wheat district, and is therefore one of the first class counties. Its soil is admirably adapted to the cultivation of winter wheat, and is fertile and productive. It has considerable hydraulic power in its bounds; and the Erie canal, and a branch of the Central railroad passing across it from west to east, furnish ample facilities for marketing its surplus products. It has not the prospect of increasing its population or its wealth as rapidly as the counties of Niagara or Monroe, and its valuation will not be materially changed, or require so often to be readjusted, as many other counties which do not possess such advantages of soil. Still, it must advance, in both population and wealth, though at a slower rate. It is, however, essentially an agricultural county, and its productiveness and value will be considerably enhanced by the drainage of the Tonawanda swamp, by the State, and thus reclaiming some valuable lands now nearly unproductive, and which cannot be drained by individual enterprise.

Seneca County.

The county of Seneca is bounded on the north by the county of Wayne, east by the Cayuga lake dividing it from the county of Cayuga, and a small part of Tompkins, on the south by parts of the counties of Tompkins and Schuyler, west in part by the county of Ontario and by the Seneca lake, separating it from the counties of Ontario and Yates.

Its surface is gently undulating, and it lies within the wheat region. It is a first class county, the soil being well adapted, with but few exceptions, to the successfull cultivation of that plant over the entire county.

It has extensive and valuable hydraulic privileges, furnished by the

Seneca river, and contains now manufacturing centres of importance, which must rapidly increase in population and wealth. The public works in the improvement of the Seneca river, and in the railroads which cross it near its northern end, together with an internal lake navigation, which nearly encircles it, are ample for developing its advantages, and for bringing within its bounds increasing population and wealth. Its valuations will require annual revision, in order to their proper adjustment in the general equalization with the other counties of the State.

Wayne County.

The County of Wayne is bounded north by Lake Ontario, east by the county of Cayuga, south by parts of the counties of Seneca and Ontario, and West by the county of Monroe.

The surface is generally broken, undulating, and in some portions hilly. It is situated within the wheat region, its soil being admirably calculated for the successful cultivation of that plant.

Its public improvements are the Erie canal and New York Central railroad, running through the southern portions of the county from west to east. There is no very extensive hydraulic power in the county, whereby there can be made a large manufacturing centre, nor has it any superior commercial advantages that will be very rapidly improved.

It is a flourishing inland agricultural county, and its population and wealth will gradually increase, so that its valuations will require at least annual revision.

Yates County.

Yates county is bounded on the east by the Seneca lake, on the south by parts of the counties of Schuyler and Steuben, on the west by part of the county of Ontario and Canandaigua lake, and on the north by the county of Ontario. Its surface is slightly hilly, and gently undulating, and the greater portion of the county is situated within the winter-wheat region. Its soil is admirably adapted to the profitable cultivation of that plant, and to the other grains; and it is, therefore, in the first class. It is a thriving agricultural inland county, which has in its railroad, canal and lake, facilities for marketing its surplus products, abundant means for developing its resources, and must gradually increase in population and wealth, but not as rapidly as some of the more northern wheat-growing counties. It has no important manufacturing centre, nor any peculiar advantages for building one up at present. Its valuations will require revision once in two years.

Area, Population, Agricultural Valuations and Commercial Routes of Traffic.

AREA.

This group is 14 per cent. of the whole State, and embraces an area of 5,644 square miles, whereof there are:

Improved, square miles	4,063
Unimproved, do	1,581

The proportion therefore is:

Improved, percent	72
Unimproved, do	28

Reduced to acres there are:

Improved, acres	2,600,209
Unimproved, acres	1,011,964
Total acres	3,622,273

The improved is 72 per cent of the whole area, or the improved to the unimproved is as 72 to 28.

The proportion of the improved land in the group to that of the aggregate improved land of the State, is 19 per cent.

POPULATION.

The aggregate population of the group is:

Rural	252,000
Village	199,406
City	87,309
Total population	538,715

The proportion of each is:

Rural, percent	49
Village do	37
City do	14

The proportion of urban and suburban population to rural, is 51 per cent.

The density of population is, total population to total area, 94 persons to the square mile, or one inhabitant to every seven acres of land.

The aggregate population to the aggregate of the improved land is, 133 persons to the square mile.

Of the rural population, there are 45 inhabitants to the square mile, or 14 acres of the total area to each person.

But the aggregate rural population to the square mile of improved land is 63, or ten acres to each person; which gives 60 acres as the average number of improved acres in each farm.

VALUATION OF FARMS AND REAL ESTATE.

The cash value of farms, stock, implements and tools, by the State census of 1855 was:

Farms	$201,289,020
Stock	22,185,009
Tools and implements	6,012,887
Total capital invested in agriculture	$229,486,916

The average value of farms, stock, tools and implements, per acre of improved land, is:

Farms, per acre	$77 00
Stock, per acre	8 57
Tools and implements, per acre	2 30
Total	$87 87

The whole average capital invested in a farm is:

Farm	$4,620 00
Stock	514 00
Tools and implements	138 00
Total invested	$5,272 00

The aggregate value of all the real estate of the group is:

Farm lands	$205,289,020
Village and corporation	29,000,000
City	20,927,000
Total	$255,216,020

The incorporated cities are Rochester, Auburn and Syracuse. The larger and more important villages are Lockport, Geneva, Seneca Falls, Lyons, Brockport, Medina. Each of which have elements of progressive increase, both in population and wealth.

The total miles of route for commercial traffic are:

Railroads, miles	590
Canal, do	313
Lakes, do	90
Total	993

The proportion of square miles of area to one mile of traffic route is, one mile of route to six square miles of surface.

The valuations of real estate by the State Assessors, and of personal estate by the town assessors, whereon the report of the Board of Equalization was based, for the years 1862 and 1863, are as follows:

Farm lands	$161,954,455
Village and corporation real estate	29,000,000
City	20,927,000
Total real estate	$211,881,455
Personal estate	25,653,391
Total real and personal estate	$237,534,846

The details are tabulated in table B, in the appendix to this group.

The banking capital employed in 1861, was $6,782,890.

The details are tabulated and shewn in table C, in the appendix to this group.

DISTRIBUTION OF FARM LANDS.

Pasture, acres	648,477
Meadow, do	424,254
Total acres in grass	1,072,731

The proportion of acres in grass to the whole area of cultivated or improved land is:

Pasture, percent	25
Meadow, do	16
Total percentage of grass	41

Therefore, only 41 acres of every 100 of the improved land is in grass.

Spring wheat, acres	20,573
Winter wheat, do	386,446
Oats, do	238,670
Rye, do	7,933
Barley, do	107,975
Total acres in white straw crops	761,597

Which is 29 per cent of the improved land.

Buckwheat, acres	35,635
Corn, do	241,247
Peas, do	8,387
Beans, do	8,466
Total acres in fodder crops	293,735
Potatoes, acres	33,561
Turnips, do	878
Total acres in roots	34,439
Flax, acres	2,218
Tobacco	633
Hops, acres	156
Market gardens, acres	822
Total acres in mercantile crops	3,849

Recapitulation.

Total acres in straw crops	761,597
do fodder crops	293,735
do roots	34,439
do mercantile crops	3,829
Total acres under cultivation exclusive of pasture	1,093,600

Being 42 per cent. of the improved land. But there is still the large fraction of 17 per cent. of the improved land not yet accounted for. It will be found principally included in the orchards and nurseries which occupy, in the aggregate, a large quantity of land in this group.

VEGETABLE PRODUCTS AND THEIR VALUE.

Hay, acres	460,486	$3,683,912
Grass seed, bushels	25,556	51,112
Spring wheat, bushels	211,654	264,568
Winter wheat, do	5,054,902	6,317,491
Oats, do	6,028,417	4,822,755
Rye, do	85,525	64,420
Barley, do	1,965,441	1,572,353
Buckwheat, do	283,490	71,744
Corn, do	6,333,144	5,066,515
Peas, do	119,991	95,993
Beans, do	97,575	195,150
Total grain products	20,729,839	
Potatoes, bushels	2,614,014	633,504
Turnips, do	156,315	15,631
Total roots	2,770,329	
Flax seed, bushels	14,693	22,040
Lint, pounds	1,014,813	101,481
Hops, do	121,432	12,143
Apples, bushels	3,940,661	394,066
Cider, barrels	80,415	80,415
Market gardens, value of products		80,998
Total value of vegetable products		$23,566,269

The average annual value of the vegetable products per acre of the improved land, exclusive of pasture, is $15.50 per acre.

The aggregate annual grain product is 17 bushels of all kinds per acre for the land upon which it was grown.

ANIMALS, AND VALUE OF THEIR PRODUCTS.

Neat cattle, total number		347,959
Under one year old	61,406	
Over two years old, exclusive of working oxen and cows	118,382	
Oxen	18,382	
Cows	149,694	
Killed for beef	30,773	
Horses	142,377	142,377
Mules	273	273
Sheep	1,054,871	
Sheep, shorn	916,747	
Reducing sheep to an equivalent of cattle or horses, at 7 to 1, they are equal to		150,640
Whole number of cattle or their equivalent		641,249

The aggregate of improved land to cattle is one to two acres, and one cow to six acres. The disproportion of cows to horses is a marked feature in the animals of this group.

The proportion of cows to aggregate stock is 24 per cent., and of all the cows in the State is 14 per cent.; but of the neat cattle of the group it is 44 per cent.

Swine under six months	114,565
Swine over six months	143,137
Total swine	257,702

ANIMAL PRODUCTS AND THEIR VALUE.

Wool, lbs	3,538,374	$1,415,339
Butter, lbs	13,526,935	2,039,040
Cheese, lbs	2,002,660	200,266
Milk, galls	1,237,360	98,988
Value of poultry sold	188,907	
Value of eggs sold	259,883	
Total value of poultry sold		448,730
Total value of animal products exclusive of animals sold		$4,202,363
To this sum should be added for the value of swine over six months, which represent the surplus sold, viz., 143,137, at $10		$1,431,370
Also of the cattle killed, which was 30,773, at $20		615,460
One-third of the cattle over 1 year, may be assumed as sold, exclusive of those killed for beef, viz., 39,400, at $20		789,200
One-tenth of the horses, 14,238		427,140
One-fourth of sheep, 263,620 head, at $2		527,240
Total value of annual surplus of animal products		$7,993,775

As this is a grain growing group, there should be added to the annual products the surplus arising from wheat, barley, rye and beans; and as it is a fruit growing region, the surplus of the orchard should also be added.

The value of surplus products, then, besides those from animals, would be:

Wheat, spring and winter	$6,582,059
Barley	1,965,441
Rye	64,420
Beans	195,150
Flax seed and lint	123,521
Hops	12,143
Apples and cider	474,481
Market gardens	80,998
Grass seed	51,112
Total vegetable surplus	$9,549,224
Add animal surplus	7,993,775
Total value of surplus products of agriculture	$17,542,999

Which is equal to $6.75 per acre of the improved land of the group, making the annual revenue of the farm $105.00, or nearly 8 per cent upon the capital invested.

AGRICULTURE.

The agriculture of this group may be termed mixed husbandry, as nearly all the land is capable of successful cultivation in wheat, and all the other grains yield profitable returns. The surplus principally depended upon for revenue is grain; winter wheat is the staple crop, and barley is the next most important one. Rye is grown to some extent as a staple, but only in the vicinity of large towns, where the straw forms a profitable product for the market.

The system generally adopted by the best class of farmers is to manure as well as they can, a clover sod which is turned over for corn, followed by oats and winter wheat, and seeded with clover and herds-grass. Plaster is used extensively upon the clover; manure is also applied to the wheat when sown, if it be in the yard; and some farmers pile their manure, which is more or less of straw, in the spring, and cart it upon the wheat when sown in the fall.

The animals which are the most generally kept are sheep, horses and hogs. The necessity of more attention to manure has compelled the adoption of a system that keeps less land under the plow and more in clover and grass, and cattle are being kept in much larger numbers than formerly; and albeit the farmers do make money from their farms, they by no means make as much as they ought with so rich a soil and so great facilities for markets. Their lands do not present the same advantages for permanent pasture as upon a soil less calcareous, more elevated, and consequently more moist.

The plan now gradually growing into favor, of abandoning the fallow system, or plowing in a crop of clover for a crop of wheat, and adopting the system of, 1st, corn; 2d, oats; 3d, wheat and seeds, and mowing or pasturing until the clover becomes less luxuriant, is that from which most money can be taken from the land, and its fertility not only maintained but increased. But it can only be made to produce these results in the highest degree by winter stall-feeding, either of sheep or cattle.

If the coarse grains be consumed upon the farm, and by their consumption with oil meal, the straw and offal of the farm be converted into manure, the clover consumed by the stock in the yard rather than upon the ground, or plowed in as grain manure, a system will be perfected that must add largely to the profits of the farmer, especially if the land be well drained when it is too wet for early cultivation. Much of the land in this group requires draining, and in no other portion of the State can farmers better afford to completely under-drain their clay lands.

There are certain facts operating upon their system of farming, as heretofore followed, which it would be well for them to heed. Their vegetable products fetch but a trifle more than they did twenty years ago—perhaps many articles not so much, whereas animals or animal products have nearly or quite doubled in the same time, and many nearly or quite quadrupled.

Any system, therefore, which does not recognize this great fact, becomes more or less defective in its proper or desired results.

The remarks heretofore made in regard to the effect of markets upon agriculture apply to this group with peculiar force, and properly pondered will add largely to the wealth of the considerate farmer.

By an examination of the tables it will be seen that sheep are the prevailing stock of this group, there being a trifle over two acres of cultivated land to a sheep, while in none of the others does it fall below four, and in some exceeds six acres to one. But it will also be noticed that the dairy is not successful here, for while in the adjoining group only eleven acres are required for a cow, here it is seventeen to one. Nor is the proportion of land in tillage to that in grass less remarkable, the grass being only forty-one per cent of the improved land, the pasture being twenty-four per cent, and the meadow only seventeen per cent..

Comparing sheep and cows with this and the adjoining, or Vth Group, we find in this group 260 sheep and 37 cows to the square mile of improved land, and in the other 59 cows and 144 sheep to the same surface.

Group VI.

TABLE A.—*Agricultural Statistics from State Census of* 1855.

COUNTIES.	Acres.		Cash Value.			Acres in pasture.
	Improved.	Unimproved.	Of farms.	Of stocks.	Tools and imple'ts.	
Cayuga	315,795	187,297	$20,700,003	$2,523,234	$637,303	95,149
Genesee	219,012	75,732	16,091,998	1,675,630	442,702	43,342
Livingston	262,463	96,378	22,406,233	2,177,384	539,435	51,233
Monroe	216,840	78,182	29,633,614	2,824,916	818,703	62,159
Niagara	207,043	101,110	16,321,349	1,900,789	562,389	35,259
Onondaga	344,528	114,701	25,353,290	2,903,509	770,065	104,997
Ontario	290,639	97,108	20,882,806	2,272,115	591,755	79,494
Orleans	181,948	62,326	12,672,552	1,531,017	425,866	41,164
Seneca	151,949	45,936	10,498,372	1,039,547	339,647	30,454
Wayne	254,451	102,062	17,037,413	2,238,425	581,096	64,313
Yates	155,542	51,134	9,691,390	1,098,443	305,926	40,913
Total	2,600,209	1,011,964	$201,289,020	$22,185,009	$6,012,887	648,477

A.—Continued.

COUNTIES.	Meadow.			Spring Wheat.		Winter Wheat.		Oats.		Rye.		Barley.	
	Acres.	Tons of hay.	Bushels of grass seed.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Cayuga	59,604	57,732	2,746	2,485	27,327	21,940	193,729	37,059	956,636	1,594	6,331	16,275	308,303
Genesee	31,135	41,398	1,766	850	11,154	41,194	760,461	10,972	300,809	100	1,149	3,049	59,819
Livingston	34,680	39,187	1,657	1,922	18,025	63,662	1,094,779	11,909	261,990	397	4,118	6,977	123,255
Monroe	45,681	58,738	1,886	182	2,620	59,138	810,363	26,025	792,370	652	9,166	7,576	179,755
Niagara	32,520	41,117	2,678	352	5,386	45,788	589,911	12,483	353,798	61	1,014	3,781	79,593
Onondaga	63,193	63,246	3,493	7,197	85,148	19,601	97,058	41,509	1,015,227	440	5,340	20,755	371,785
Ontario	45,094	42,448	2,133	3,177	27,659	38,680	528,488	22,049	525,937	1,149	16,002	18,640	320,375
Orleans	25,150	34,620	1,524	192	2,206	31,830	376,949	14,656	229,731	150	2,777	1,659	36,071
Seneca	24,660	20,879	5,098	1,229	11,379	14,912	151,721	21,429	556,238	670	7,862	6,280	104,856
Wayne	39,165	45,271	2,126	263	2,687	29,214	282,474	29,100	875,624	574	7,259	10,498	229,495
Yates	23,372	15,850	449	2,624	18,063	17,587	168,964	11,479	160,457	2,146	24,507	12,485	152,134
Total	424,254	460,486	25,556	20,573	211,654	386,446	5,054,902	238,670	6,028,417	7,933	85,525	107,975	1,965,441

A.—Continued.

COUNTIES.	Buckwhat.		Corn.		Potatoes.		Peas.		Beans.	
	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres planted.	Bushels harvested.	Acres sown.	Bushels harvested.	Acres planted.	Bushels harvested.
Cayuga	4,920	54,076	30,519	868,543	3,201	251,718	435	6,565	359	5,638
Genesee	1,829	14,914	16,286	437,052	2,383	167,274	621	8,797	635	8,569
Livingston	1,814	13,836	15,172	431,464	1,858	132,256	528	6,398	81	1,003
Monroe	3,569	22,623	30,409	805,811	7,728	654,551	992	16,028	1,427	14,342
Niagara	2,622	29,151	17,296	509,505	3,266	275,448	913	15,981	774	9,266
Onondaga	3,198	32,453	32,246	907,453	4,890	380,141	2,324	34,915	517	8,984
Ontario	3,093	18,325	24,148	617,485	2,563	188,900	1,449	15,297	201	2,404
Orleans	2,386	12,903	78,356	436,975	2,111	171,867	411	5,471	3,918	40,185
Seneca	3,550	21,436	16,239	387,998	1,091	72,544	51	640	60	573
Wayne	4,220	39,767	29,473	756,677	3,452	261,403	472	8,455	403	5,866
Yates	4,434	24,007	11,103	174,181	1,018	57,912	191	1,444	91	745
Total	35,635	283,490	241,247	6,333,144	33,561	2,614,014	8,387	119,991	8,466	97,575

A.—Continued.

COUNTIES.	Turnips.		Flax.			Hops.		Apple Orchards.		Market Gardens.	
	Acres planted.	Bushels harvested.	Acres sown.	Pounds of lint.	Bushels of seed.	Acres planted.	Pounds harvested.	Bushels of apples.	Barrels of cider.	Acres cultivated.	Value of produce.
Cayuga	76	17,464	138	18,385	1,166	5	2,640	522,751	10,362	48	$10,248
Genesee	41	6,646	57	118,500	595	21	12,007	296,121	5,767	13	641
Livingston	23	3,510	2	90	13	10	14,255	242,200	5,928	27	1,134
Monroe	195	32,507	8	1,000	56	51	44,010	491,491	10,312	245	26,540
Niagara	138	28,958	86	380	322	.....	.....	255,997	4,461	51	9,431
Onondaga	120	19,175	319	57,287	2,664	17	13,427	624,545	13,725	274	19,243
Ontario	39	5,743	41	2,070	200	42	32,751	397,098	8,044	67	6,555
Orleans	72	11,467	40	19,030	285	.....	.....	281,781	4,534	6	814
Seneca	27	4,645	988	529,811	7,055	.....	.....	175,278	4,629	36	1,425
Wayne	122	24,700	57	23,260	527	6	737	509,626	8,893	49	4,198
Yates	25	1,500	482	245,000	1,850	4	1,605	143,773	3,760	6	769
Total	878	156,315	2,218	1,014,813	14,693	156	121,432	3,940,661	80,415	822	$80,998

A.—Continued.

COUNTIES.	Neat Cattle.						Pounds of butter.	Pounds of cheese.	Gallons of milk sold.	Horses.
	Total.	Under 1 year.	Over 1 year ex. oxen.	Working oxen.	Cows.	Cattle killed.				
Cayuga	46,178	7,810	16,040	2,506	19,822	3,093	2,082,082	200,333	84,344	15,405
Genesee	24,785	4,298	8,529	1,417	10,541	1,789	919,130	105,873	157,914	11,395
Livingston	29,383	4,696	11,956	1,751	10,980	3,229	1,045,591	79,346	8,825	12,502
Monroe	39,545	7,156	12,881	1,944	17,564	4,558	1,643,515	131,253	287,522	18,913
Niagara	28,238	5,038	9,434	2,058	11,708	3,500	1,038,307	71,443	59,179	14,334
Onondaga	50,228	7,644	15,329	2,454	24,801	4,269	2,294,287	860,644	330,273	17,330
Ontario	33,962	5,859	11,788	2,113	14,202	2,848	1,223,097	205,921	217,340	13,660
Orleans	23,412	4,782	8,545	1,164	8,921	1,294	912,013	110,300	15,764	9,640
Seneca	17,000	3,611	5,672	577	7,136	2,160	205,574	13,812	34,281	7,497
Wayne	38,464	7,133	12,800	1,762	16,769	2,456	1,446,080	163,763	29,323	14,928
Yates	16,784	3,379	5,408	747	7,250	1,577	717,259	59,972	12,595	6,773
Total	347,959	61,406	118,382	18,493	149,694	30,773	13,526,935	2,002,660	1,237,360	142,377

A.—Continued.

COUNTIES.	Mules.	Swine.		Sheep.			Poultry.		Gypsum.	
		Under 6 months.	Over 6 months.	No. of sheep.	No. of fleeces shorn.	Pounds of wool.	Value of poultry.	Value of eggs sold.	Tons.	Value.
Cayuga	4	14,187	14,894	103,631	98,500	348,830	$26,416	$45,866	1,591	$5,027
Genesee	13	8,150	11,123	100,391	91,178	352,003	11,212	13,692	1,197	3,863
Livingston	47	8,632	10,643	112,562	106,839	377,690	8,721	11,092	2,459	10,335
Monroe	16	15,641	19,086	116,817	91,910	350,468	21,098	26,292	2,637	8,663
Niagara	5	8,479	13,280	78,259	55,307	219,903	11,357	19,008	680	3,254
Onondaga	8	14,727	16,812	94,202	84,662	318,446	24,807	43,927	2,894	7,800
Ontario	159	13,161	13,258	132,725	138,842	609,075	25,128	23,018	2,882	10,816
Orleans	2	6,465	9,227	91,285	64,909	255,802	9,091	13,590	950	5,325
Seneca	6	6,262	11,270	47,534	41,877	150,946	19,285	17,323	1,470	3,310
Wayne	5	12,175	17,624	104,845	77,936	295,810	19,238	36,955	1,632	5,727
Yates	8	6,666	5,920	72,620	64,827	259,401	12,554	9,060	1,973	8,441
Total	273	114,545	143,137	1,054,871	916,747	3,538,374	$188,907	$259,823	20,365	74,561

B.

Digest of Facts by State Assessors for Board of Equalization.

COUNTIES.	Whole number of acres returned by supervisors.	Price of farm lands per acre.	Aggregate value of farm lands.	State Assessors' valuation of the real estate of villages and corporations.	State Assessors' valuation of real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate.
Cayuga	416,045	$45 00	$18,722,125	$2,000,000	$3,475,000	$24,197,125	$3,418,399
Genesee	309,804	40 00	12,392,160	2,000,000	.....	14,392,160	1,819,719
Livingston	382,126	45 00	17,181,455	2,500,000	.....	19,681,455	2,994,767
Monroe	390,699	45 00	17,581,455	4,000,000	10,702,000	32,283,455	4,426,148
Niagara	310,520	45 00	13,913,400	3,500,000	.....	17,413,400	1,784,967
Onondaga	461,620	45 00	20,772,900	2,000,000	6,750,000	29,522,900	3,273,825
Ontario	390,139	45 00	17,556,255	3,500,000	.....	21,056,255	3,344,641
Orleans	236,320	45 00	10,634,400	2,000,000	.....	12,634,400	1,009,753
Seneca	197,614	45 00	8,892,630	3,000,000	.....	11,892,630	1,598,807
Wayne	356,111	45 00	16,024,995	3,000,000	.....	19,024,995	1,697,618
Yates	207,317	40 00	8,282,680	1,500,000	.....	9,782,680	954,747
Total	3,658,315	Av. $44 00	$161,954,455	$29,000,000	$20,927,000	$211,881,455	$25,653,391

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital, also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, Oct. 1, 1861.	Local assessors' valuation of real estate, as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal estate, as returned by the supervisors, 1861.	Rate per capita of personal estate over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, '61.
Cayuga	55,767	$950,000	$15,234,595	17 00	$61 00	$44 00	$357 00	$272 00
Genesee	32,189	340,000	10,993,112	10 00	57 00	47 00	349 00	342 00
Livingston	39,546	480,250	11,920,895	12 00	58 00	46 00	410 00	302 00
Monroe	100,648	2,424,920	22,420,831	24 00	44 00	20 00	250 00	226 00
Niagara	50,399	354,000	11,587,503	7 00	35 00	28 00	270 00	230 00
Onondaga	90,686	1,565,000	22,465,219	15 00	36 00	27 00	254 00	248 00
Ontario	44,563	231,000	13,872,858	5 00	75 00	70 00	369 00	312 00
Orleans	28,717	171,200	8,144,330	6 00	35 00	29 00	341 00	288 00
Seneca	28,138	250,000	9,118,689	9 00	57 00	48 00	330 00	324 00
Wayne	47,762	290,820	12,279,604	6 00	35 00	29 00	294 00	260 00
Yates	20,290	25,000	6,522,036	1 00	47 00	46 00	373 00	321 00
Total	538,705	$6,782,890	$144,567,672	$12 40	.....	.....	.....	.....

GENERAL APPENDIX.

TABLE A.

Population—Aggregate and in Detail, and in Proportion.

GROUPS.

KIND.	1.	II.	III.	IV.	V.	VI.	State.
City	1,080,330	61,148	71,946	.....	126,474	87,309	1,421,288
Village	85,951	175,136	261,055	140,079	243,988	199,406	1,105,615
Rural	52,738	121,560	185,874	189,306	552,546	252,000	1,354,144
Total	1,219,039	357,844	529,875	329,385	917,008	538,716	3,881,047
Per cent of							
City	89	19	22	.....	13	14	37
Village	7	48	42	42	20	37	28
Rural	4	33	36	58	67	49	35
Proportion of aggregate population	31	9	12	9	26	13	.....
Proportion of area	3	9	16	24	35	13	.....
Square miles occupied by each class of population:							
City	.....	.....	.....	.....	.....	.....	156
Village	.....	.....	.....	.....	.....	.....	2,600
Rural	.....	.....	.....	.....	.....	.....	19,183
Aggregate population to square mile of aggregate land	215	105	70	33	65	94	91
Aggregate population to square mile of improved land	2,473	143	134	114	122	133	181
City population to aggregate city square miles	.....	.....	.....	.....	.....	.....	9,047
Population of village to aggregate square miles	.....	.....	.....	.....	.....	.....	553
Rural population to aggregate of land	52	.....	25	17	39	45	70
Rural population to square miles of improved land	107	49	48	66	72	63	.....

TABLE B.

Valuation of Real Estate, Stock and Implements, and Capital invested in Farms.

GROUPS.

KINDS.	I.	II.	III.	IV.	V.	VI.	State.
Farms	$48,229,327	$113,954,486	$125,814,773	$70,830,049	$247,237,660	$205,289,020	$799,355,367
Stock	4,956,005	11,505,557	17,720,784	11,713,835	35,594,370	22,185,009	103,776,053
Implements	1,160,452	3,002,984	5,436,771	2,775,998	8,238,551	6,012,887	26,927,502
Total invested in agriculture	$54,245,779	$128,463,027	$148,972,328	$85,319,877	$291,070,581	$229,486,916	$930,058,922
Farms per acre	$153 00	71 00	$51 00	$38 00	$58 00	$77 00	$67 57
Stock per acre	12 72	7 20	7 00	6 00	8 35	8 57	7 60
Implements per acre	3 36	1 80	1 70	1 50	1 93	2 30	1 91
Capital per acre	$172 08	$80 00	$59 70	$45 50	$68 28	$87 87	$77 08
Farm lands	$48,229,322	$113,954,486	$125,814,773	$70,830,044	$247,237,660	$205,289,020	$799,355,367
Village and corporation real estate	13,000,000	32,000,000	20,500,000	8,000,000	38,270,000	29,000,000	138,600,000
City real estate	582,000,000	15,226,000	24,500,000	.....	36,150,000	20,927,000	679,753,000
Total real estate	$643,429,322	$161,480,486	$170,814,773	$78,830,044	$321,657,660	$255,216,020	$1,617,708,367
Average capital in farms:							
Land	$5,508 00	$5,538 00	$4,080 00	$2,508 00	$3,132 00	$4,620 00	.....
Stock	576 00	662 00	560 00	396 00	482 00	514 00	.....
Implements	121 00	140 00	1 13	99 00	104 00	138 00	.....
Total average capital in average of farms	$6,205 00	$6,340 00	$4,641 13	$3,003 00	$3,718 00	$5,272 00	.....
Average per cent of capital employed in farms	.....	.....	.....	.....	.....	.....	86
Average per cent of stock employed in farms	.....	.....	.....	.....	.....	.....	11
Average per cent of implements employed in farms	.....	.....	.....	.....	.....	.....	3

[T. C. P.]

TABLE C.

Area of Groups in square miles, and total of State, and distribution of improved land in Groups, and average size of farms on improved land.

GROUPS.

LAND IN SQUARE MILES.	I.	II.	III.	IV.	V.	VI.	State.
Improved	493	2,499	3,380	2,880	7,522	4,063	21,340
Unimproved	518	900	3,904	7,167	6,670	1,581	21,469
Total square miles	1,011	3,399	7,284	10,047	14,192	5,694	42,809
Per cent of total area	3	9	16	24	35	13	.....
Per cent of improved	2	12	18	13	36	19	51
Improved acres	315,360	1,599,229	2,485,309	1,843,990	4,814,368	2,600,209	13,657,490
Unimproved acres	331,893	538,209	2,163,339	4,786,671	4,268,555	1,011,964	13,100,692
Total acres	647,253	2,137,438	4,648,648	6,630,661	9,082,923	3,612,173	26,758,182
Average size of farms in acres of improved land	36	78	80	66	54	60	62
Pasture, acres	85,458	636,088	1,028,603	769,468	1,775,600	648,877	4,948,114
Meadow, acres	77,381	387,414	694,919	523,730	1,275,419	424,254	3,384,440
Total in grass	162,839	1,023,502	1,723,522	1,293,598	3,051,019	1,073,131	8,332,554
Per cent in pasture	13	39	41	42	37	24	36
Per cent in meadow	12	25	28	28	26	17	25
Total per cent in grass	25	64	69	70	63	41	61

TABLE D.—*Distribution of improved land in Crops.*

KINDS OF CROPS.	I.	II.	III.	IV.	V.	VI.	State.
Spring wheat, acres	46	3,600	13,290	54,982	101,912	20,573	194,346
Winter wheat, acres	18,531	24,095	26,377	9,333	140,231	386,446	611,141
Oats	21,021	151,377	283,460	159,614	495,306	238,670	1,349,284
Rye	11,881	99,906	106,368	25,873	29,731	7,933	281,714
Barley	718	1,954	10,603	7,243	84,093	107,975	212,608
Total in white straw crops, acres	51,197	279,932	440,098	255,045	851,273	761,597	2,649,193
Total per cent of land in tillage in white straw crops	45	60	59	63	67	70	64.7
Total per cent of land in tillage, in wheat	16	57	3	18	19	37	19.7
do do in oats	18	30	40	37	39	22	33
do do in rye	10	22	15	6	02	00.6	7
do do in barley	06	02	01.5	01.7	07	09	5
Buckwheat, acres	9,484	28,286	104,467	34,884	80,735	35,635	293,253
Indian corn, acres	35,001	123,022	100,176	82,950	225,348	241,247	817,601
Peas, acres	569	6,504	8,824	11,584	17,281	8,387	48,154
Beans, acres	333	1,006	1,246	1,862	3,977	8,466	16,917
Total fodder crops, acres	45,387	153,818	214,713	131,280	327,341	293,735	1,175,905
Per cent of tillage land in fodder crops	39	22	30	30	26	26	28.4
do do in buckwheat	08	07	15	08	07	03	07
do do in corn	30	12	14	19	18	22	20
do do in peas and beans	1	3	1	3	1	1	144
Potatoes	10,924	34,854	36,059	41,214	62,846	33,561	220,575
Turnips	1,403	1,872	1,280	522	1,595	878	7,578
Total in root crops	12,327	36,726	37,339	41,736	64,441	34,439	228,353
Flax, acres	1	5,288	2,178	561	1,505	2,218	11,764
Hops, acres	1	7	5,395	1,319	2,591	156	9,481
Tobacco, acres	.....	.....	.....	.....	.....	619	786
Market gardens, acres	4,944	1,184	1,514	295	1,164	822	9,945
Total in commercial crops	4,946	6,429	9,087	2,175	5,260	3,815	31,976

TABLE D.

Aggregate of land in tillage in each class of crops, and per cent of each class of crops to aggregate land in tillage in same crop.

GROUPS.

CLASS AND KIND OF CROPS.	I.	II.	III.	IV.	V.	VI.	State.
White straw crops, acres	52,197	279,932	440,008	255,045	851,273	761,597	2,649,193
Fodder crops, acres	45,387	153,815	214,713	131,280	327,341	293,735	1,175,905
Root crops, acres	12,327	36,726	37,339	41,736	64,441	34,439	228,153
Miscellaneous or commercial crops, acres	4,946	6,479	9,047	2,175	5,260	3,815	30,976
Total in tillage	111,857	476,955	701,197	430,236	1,248,315	1,093,591	4,084,227
Spring wheat, per cent	.....	02	07	30	53	10	4.7
Winter wheat, do	03	04	04	02	23	63	15
Oats, do	01.5	11	21	12	37	17	33
Rye, do	04	35	38	9	10	2	7
Barley, do	00.3	01	05	4	40	50	5
Buckwheat, do	03	9	35	12	26	15	7
Corn, do	4	15	12	10	28	30	20
Peas and beans, do	1.5	4	14	21	35	26	.....
Potatoes, do	5	15	16	17	28	15	.....
Flax, do	.....	45	18	5	12	20	.....
Hops, do	....	.....	57	14	27	2	.....
Market gardens, do	50	12	14	3	12	9	.....

TABLE E.

Vegetable products in Groups and in State.

KINDS.	GROUPS. I.	II.	III.	IV.	V.	VI.	State.
Spring wheat, bushels	752	39,571	121,466	524,557	1,175,440	211,654	2,033,353
Winter wheat, bushels	283,140	35,751	137,267	56,347	1,417,626	5,054,902	7,059,049
Oats, bushels	449,690	2,797,760	4,465,093	3,054,592	10,178,955	6,028,417	27,015,296
Rye, bushels	132,247	1,180,224	1,066,047	256,282	320,090	85,525	3,039,438
Barley, bushels	14,370	32,915	147,354	118,079	985,333	1,965,441	3,563,540
Buckwheat	41,640	222,545	838,594	314,532	780,456	283,490	2,481,079
Indian corn	940,848	2,446,895	2,007,582	1,552,042	6,009,768	6,333,144	19,290,691
Peas	51,176	18,068	112,316	158,112	246,147	119,991	705,976
Beans	31,517	13,029	15,892	21,199	64,816	97,575	244,079
Total	1,065,181	2,700,537	2,974,184	2,045,885	7,101,187	6,834,200	....
Potatoes	986,988	2,179,516	1,964,014	2,919,157	4,528,056	2,614,014	15,191,852
Turnips	226,269	154,103	101,047	66,825	240,959	156,315	985,522
Hay, tons	112,272	395,671	658,109	455,636	1,180,752	460,486	3,256,448
Grass seed, bushels	2,450	4,998	21,176	15,140	51,505	25,556	120,866
Flax seed	.....	42,338	12,569	6,523	10,951	14,693	87,093
Flax lint, pounds	300	1,513,885	1,397,428	556,585	410,042	1,014,813	4,907,556
Hops, pounds	304	4,719	3,886,620	970,203	2,220,377	121,432	7,192,254
Apples, bushels	31,228	834,574	2,345,506	1,143,658	5,443,202	3,940,661	.....
Cider, barrels	456	31,039	47,476	24,379	89,860	80,415	.....

TABLE F.

Animals in each Group, and in State, and in Product.

GROUPS.

KINDS.	I.	II.	III.	IV.	V.	VI.	State.
Total neat cattle	47,318	190,452	390,681	290,456	787,674	347,959	2,105,465
Under one year old	6,225	24,370	57,245	40,732	123,816	61,406	311,174
Over 1 year old, exclusive of working oxen and cows	11,905	40,101	95,906	78,533	237,903	118,382	577,887
Working oxen	4,373	23,395	28,965	17,366	52,005	18,493	144,597
Cows	24,815	102,566	208,905	153,825	448,623	149,694	1,068,427
Killed for beef	53,409	23,373	38,537	20,014	59,242	30,773	225,338
Horses	36,323	51,084	90,372	70,773	188,769	142,377	579,715
Mules	745	335	474	121	296	273	2,254
Swine under six months old	17,808	103,418	116,371	52,663	125,353	114,545	530,176
Swine over six months old	23,086	55,306	96,446	54,237	172,349	143,137	539,616
Sheep	37,789	361,503	388,439	295,063	1,087,033	1,054,871	3,217,024
Fleeces shorn	30,302	314,451	267,612	225,360	866,951	916,747	2,630,203
Animal product:							
Butter, pounds	1,118,178	7,556,184	20,179,693	11,015,800	38,396,343	13,526,935	91,293,073
Cheese, pounds	2,345	1,299,894	3,527,482	11,884,219	20,728,641	2,002,660	33,944,249
Milk sold, gallons	3,681,035	8,104,806	5,553,581	208,209	932,781	1,237,360	20,965,861
Wool, pounds	89,040	1,037,641	919,776	775,773	2,954,348	3,538,374	9,231,959
Poultry sold, value	$116,129	$218,034	$177,257	$76,729	$239,650	$188,907	$2,437,271
Eggs sold, value	108,830	258,407	270,166	115 325	348,595	259,823	.....

TABLE G.

Animals to square mile of improved land.

GROUPS.

KINDS.	I.	II.	III.	IV.	V.	VI.	State.
Total neat cattle	96	76	115	100	104	85	100
Under one year old	5	10	17	14	16	15	15
Over 1 year old, exclusive of working oxen and cows	24	16	29	27	32	29	28
Working oxen	9	9	8	6	7	4	7
Cows	50	41	62	53	59	37	50
Killed for beef	108	9	11	7	8	7	10
Horses	704	20	26	24	25	35	28
Swine under 6 months old	36	41	34	16	17	28	29
Swine over 6 months old	46	22	27	17	22	35	28
Sheep	76	144	112	102	144	260	140
Total cattle, or their equivalent in horses and sheep	811	116	157	138	149	157	148

TABLE H.

Showing percentage of general crop to each Group.

KIND OF CROP.	I.	II.	III.	IV.	V.	VI.
Spring wheat	00	02	06	25	57	10
Winter wheat	4	2	2	1	20	71
Oats	2	11	16	12	38	21
Rye	5	40	35	8	10	2
Barley	00	1	4	4	30	61
Buckwheat	2	9	34	13	31	11
Corn	5	13	11	3	32	36
Peas	7	2	15	18	35	23
Beans	13	5	7	9	27	39
Potatoes	6	14	13	19	30	18
Hay	3	12	20	12	36	17
Lint, pounds	00	31	30	9	7	20
Hops, pounds	00	00	54	13	30	3

"Digest of Facts," as acted upon by the Board of Equalization for the years 1862 *and* 1863.

COUNTIES.	Price of farm lands per acre.	Whole number of acres taxed as returned by supervisors.	Aggregate valuation of farm lands.	State Assessors' valuation of real estate in villages and of corporations.	State Assessors' valuation of the real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate for 1861.
Albany	$50	$308,148	$15,407,400	$4,000,000	$23,000,000	$42,407,400	$6,276,718
Allegany	15	641,093	9,616,295	1,300,000	.....	10,916,395	754,257
Broome	18	431,081	7,759,458	2,700,000	.....	10,459,458	854,585
Cattaraugus	11	801,302	8,814,322	1,500,000	.....	10,314,322	419,282
Cayuga	45	416,045	18,722,125	2,000,000	3,475,000	24,197,125	3,418,399
Chautauqua	20	650,613	13,012,260	3,000,000	.....	16,012,260	1,791,236
Chemung	22	250,131	5,502,926	2,500,000	.....	8,002,926	836,058
Chenango	18	543,910	9,790,380	1,500,000	.....	11,290,380	1,606,301
Clinton	9	617,776	5,558,184	900,000	.....	6,458,184	703,647
Columbia	45	383,294	17,248,230	4,000,000	1,000,000	22,248,250	4,361,102
Cortland	20	309,338	6,186,760	1,400,000	.....	7,586,760	623,515
Delaware	9	877,593	7,898,327	700,000	.....	8,598,327	1,192,460
Dutchess	55	488,802	26,884,110	4,000,000	2,226,000	33,110,110	8,031,920
Erie	28	614,171	17,205,188	4,000,000	30,000,000	51,205,188	6,605,505
Essex	3	1,068,691	3,306,073	500,000	.....	3,806,073	457,705
Franklin	4	997,053	3,988,202	900,000	.....	4,888,202	402,465
Fulton	14	313,162	4,384,268	250,000	.....	4,634,268	539,766
Genesee	40	209,804	12,392,160	2,000,000	.....	14,392,160	1,849,719
Greene	18	387,718	6,978,924	2,000,000	.....	8,978,924	1,236,898
Hamilton	1	772,846	772,846	.....	.....	772,846	3,757
Herkimer	15	653,728	9,805,905	2,000,000	.....	11,805,905	1,935,862
Jefferson	20	758,126	14,662,520	3,000,000	.....	17,662,520	2,790,116
Kings	220	18,740	4,822,800	3,000,000	96,200,000	104,022,800	12,646,100
Lewis	8	713,651	5,709,208	300,000	.....	6,009,208	592,074

"*Digest of Facts.*"—Continued.

COUNTIES.	Prices of farm lands per acre.	Whole number of acres taxed as returned by supervisors.	Aggregate valuation of farm lands.	State Assessors' valuation of real estate in villages and of corporations.	State Assessors' valuation of the real estate of cities.	Aggregate of State Assessors' valuation of real estate.	Local Assessors' valuation of personal estate for 1861.
Livingston	$45	$382,126	$17,181,455	$2,500,000	.....	$19,681,455	$2,294,767
Madison	30	388,971	11,669,160	2,570,000	.....	14,169,160	2,229,590
Monroe	45	390,699	17,581,455	4,000,000	10,702,000	32,283,455	4,426,148
Montgomery	40	231,450	9,258,000	2,000,090	.....	11,258,000	659,631
New York	.....	13,920	.....	.....	486,000,000	486,000,000	174,624,306
Niagara	45	310,520	13,913,400	3,500,000	.....	17,413,400	1,784,967
Oneida	28	735,612	20,507,136	4,000,000	3,150,000	27,657,136	3,067,196
Onondaga	45	461,620	20,772,900	2,000,000	6,750,000	29,522,900	3,273,825
Ontario	45	390,139	17,556,255	3,500,000	.....	21,056,255	3,344,641
Orange	45	479,345	21,570,525	4,400,000	.....	25,570,525	6,010,061
Orleans	45	236,320	10,634,400	2,000,000	.....	12,634,400	1,009,753
Oswego	18	462,399	8,323,182	2,000,000	3,000,000	13,323,182	1,834,210
Otsego	19	609,167	11,574,173	1,500,000	.....	13,074,173	2,209,485
Putnam	40	130,151	5,206,040	300,000	.....	5,506,040	978,357
Queens	80	180,687	14,454,960	6,000,000	.....	20,454,960	5,223,418
Rensselaer	40	390,867	15,634,680	3,000,000	12,000,000	30,634,680	7,258,439
Richmond	110	30,233	3,322,230	3,000,000	.....	6,322,230	887,700
Rockland	45	101,737	4,577,715	1,500,000	.....	6,077,715	1,287,416
Saratoga	20	509,390	10,187,806	2,000,000	.....	12,187,806	2,838,748
Schenectady	50	112,575	6,128,760	500,000	1,500,000	8,128,760	805,794
Schoharie	20	378,364	7,466,080	500,000	.....	7,966,080	841,685
Schuyler	28	200,597	6,616,716	1,000,000	.....	7,616,716	346,250
Seneca	45	197,614	8,892,630	3,000,000	.....	11,892,630	1,598,807
St. Lawrence	9	1,679,295	15,123,165	2,000,000	.....	17,123,165	1,704,190

Steuben	14	835,000	11,690,000	2,000,000	.....	13,690,000	2,253,921
Suffolk	17	418,967	7,122,439	1,000,000	.....	8,112,439	2,067,275
Sullivan	8	571,500	4,572,080	1,000,000	.....	5,572,080	411,522
Tioga	20	309,890	6,197,800	2,000,000	.....	8,197,800	873,487
Tompkins	30	292,164	8,764,920	1,500,000	.....	10,264,920	1,333,211
Ulster	30	669,713	13,394,260	2,500,000	.....	15,894,260	2,430,903
Warren	4	488,920	1,955,716	250,000	.....	2,205,716	423,000
Washington	30	498,597	14,957,610	2,000,000	.....	16,957,610	3,204,838
Wayne	45	356,111	16,024,995	3,000,000	.....	19,024,995	1,697,618
Westchester	100	280,193	28,019,300	19,000,000	.....	47,019,300	6,850,937
Wyoming	30	368,000	11,040,000	1,000,000	.....	12,040,000	838,368
Yates	40	207,317	8,282,680	1,500,000	.....	9,782,680	954,747
Total	.....	$27,624,782	$648,392,863	$138,600,000	$679,753,000	$1,435,866,153	$313,802,682

TABLE *showing population, banking capital, local assessors' valuation of real estate for* 1861, *and the rate per capita of banking capital, also of personal estate, and the excess of personal estate per capita over bank capital, as well as the rate per capita of the equalized value of real estate, and of local assessors' valuation of the same.*

COUNTIES.	Population for 1860 by U. S. census.	Bank capital, October 1, 1861.	Local assessors' valuation of real estate as returned by supervisors, 1861.	Rate per capita of bank capital.	Rate per capita of personal estate, as returned by the supervisors, 1861.	Rate per capita of personal estate over banking capital.	Rate per capita of equalized real estate, 1862.	Rate per capita of real estate, according to local assessors' valuation, 1861.
Albany	113,916	$3,233,250	$31,381,015	$28 00	$55 00	$27 00	$203 00	$275 00
Allegany	41,881	100,000	7,330,750	2 00	18 00	16 00	198 00	175 00
Broome	35,906	400,000	6,403,490	11 00	24 00	13 00	225 00	178 00
Cattaraugus	43,886	.....	6,808,871	.....	9 00	9 00	182 00	155 00
Cayuga	55,767	950,000	15,234,595	17 00	61 00	44 00	357 00	272 00
Chautauqua	58,418	536,750	12,512,403	9 00	31 00	22 00	215 00	214 00
Chemung	26,917	350,000	5,900,394	13 00	31 00	18 00	231 00	222 00
Chenango	40,934	275,000	9,111,955	6 00	39 00	33 00	200 00	220 00
Clinton	45,735	150,000	5,251,308	3 00	15 00	12 00	109 00	115 00
Columbia	47,172	1,060,000	13,557,759	22 00	92 00	70 00	370 00	288 00
Cortland	26,294	100,000	5,159,395	2 00	24 00	22 00	227 00	193 00
Delaware	42,465	275,000	7,421,977	7 00	37 00	30 00	157 00	175 00
Dutchess	64,941	1,703,900	21,947,360	26 00	124 60	98 00	396 00	323 00
Erie	141,971	2,438,850	36,629,213	17 00	47 00	30 00	282 00	259 00
Essex	20,814	100,000	3,643,025	3 00	16 00	13 00	109 00	164 00
Franklin	30,837	150,000	4,184,126	5 00	13 00	8 00	123 00	136 00
Fulton	24,162	250,000	3,451,202	10 00	22 00	12 00	108 00	143 00
Genesee	32,189	340,000	10,993,112	10 00	57 00	47 00	349 00	342 00
Greene	31,930	437,132	5,800,183	14 00	37 00	23 00	218 00	181 00
Hamilton	3,024	.....	466,798	.....	1 00	1 00	191 00	126 00
Herkimer	40,561	773,125	7,866,381	19 00	47 00	28 00	227 00	194 00
Jefferson	69,825	791,900	12,365,049	11 00	39 00	28 00	197 00	178 00
Kings	279,122	3,310,000	98,509,344	12 00	45 00	33 00	288 00	353 00

Lewis	28,580	102,450	3,581,769	4 00	21 00	17 00	168 00	126 00
Livingston	39,546	480,250	11,920,895	12 00	58 00	46 00	410 00	202 00
Madison	43,545	735,000	9,013,379	17 00	51 00	34 00	254 00	230 00
Monroe	100,618	2,424,820	22,428,831	24 00	44 00	20 00	250 00	226 00
*Montgomery	30,866	765,125	6,098,176	25 00	21 00	0 04	283 00	198 00
New York	813,609	69,650,605	406,882,790	85 00	215 00	130 00	460 00	500 00
Niagara	50,399	354,000	11,587,503	7 00	35 00	28 00	270 00	230 00
Oneida	105,201	2,115,380	13,432,035	20 00	29 00	9 00	206 00	127 00
Onondaga	90,086	1,565,700	22,465,219	15 00	36 00	27 00	254 00	248 00
Ontario	44,563	231,000	13,872,858	5 00	75 00	70 00	369 00	312 00
Orange	63,812	1,601,160	19,487,162	25 00	94 00	69 00	305 00	305 00
Orleans	28,717	171,200	8,144,330	6 00	35 00	29 00	341 00	288 00
Oswego	75,958	1,103,000	12,013,716	14 00	24 00	10 00	134 00	158 00
Otsego	50,157	779,350	9,548,304	15 00	44 00	39 00	203 00	196 00
Putnam	14,002	304,557	3,982,103	22 00	70 00	48 00	307 00	284 00
Queens	57,391	.....	15,874,950	.....	92 00	92 00	226 00	259 00
Rensselaer	86,328	3,750,500	19,063,031	43 00	84 00	41 00	277 00	220 00
Richmond	25,490	.....	6,025,558	.....	35 00	35 00	194 00	236 00
Rockland	22,499	89,900	4,772,080	4 00	58 00	54 00	211 00	212 00
Saratoga	51,729	610,000	8,862,388	12 00	55 00	43 00	184 00	171 00
Schenectady	20,002	250,000	4,941,021	12 00	40 00	28 00	317 00	247 00
Schoharie	34,469	50,000	5,305,784	15 00	25 00	10 00	180 50	154 00
Schuyler	18,840	50,000	4,062,468	3 00	18 00	16 00	315 00	216 00
Seneca	28,138	250,000	9,118,689	9 00	57 00	48 00	330 00	324 00
St. Lawrence	83,689	422,000	14,376,546	5 00	20 00	15 00	160 00	172 00
Steuben	66,689	270,000	12,126,697	4 00	34 00	30 00	160 00	182 00
Suffolk	43,275	120,000	8,854,957	3 00	48 00	45 00	146 00	205 00
Sullivan	32,385	150,000	3,559,073	5 00	13 00	8 00	134 00	110 00
Tioga	28,748	406,100	4,559,675	14 00	34 00	20 00	223 00	159 00
Tompkins	31,409	340,000	5,729,339	11 00	43 00	32 00	255 00	180 00
Ulster	76,381	1,025,000	11,822,183	13 00	32 00	19 00	162 00	155 00
Warren	21,434	248,400	2,121,073	12 00	20 00	8 00	80 00	100 00
Washington	45,904	1,079,950	12,876,110	23 00	70 00	47 00	290 00	280 00
Wayne	47,762	290,820	12,279,604	6 00	35 00	29 00	294 00	260 00
Westchester	99,497	571,150	34,399,592	6 00	70 00	64 00	370 00	345 00
Wyoming	31,968	85,000	7,402,896	3 00	26 00	23 00	294 00	232 00
Yates	20,290	25,000	6,522,036	1 00	47 00	46 00	373 00	321 00
Total	3,880,728	$107,656,664	$1,121,134,480					

* Montgomery county returns less personal estate than her banking capital by $105,494.

TABLE K.—Manufactures.

General Summary of classes, number of establishments, hands employed, motive power, capital invested, value of products, &c.

CLASSES.	No. of Persons.		Motive Power.		Capital Invested.		Cash Value.	
	Establishments.	Employed.	Water.	Steam.	In real estate.	In tools and machinery.	Of raw materials used.	Of manufactured articles.
I. Agricultural tools and implements	302	2,474	126	65	$749,505	$304,855	$1,235,929	$3,120,409
II. Metalurgy and manufacture of metals and instruments	4,783	33,946	302	500	10,078,305	6,426,378	21,806,828	43,192,687
III. Of fibrous and flexible substances	889	19,669	505	153	5,294,629	5,406,825	10,804,173	19,643,028
IV. Chemical processes, manufactures and compounds	1,351	14,646	115	246	11,497,274	7,591,362	35,692,784	61,527,083
V. Calorifics	57	1,872	3	28	616,900	201,963	949,135	2,348,431
VI. Steam engines, boilers, &c	32	4,348	.....	20	1,402,300	1,218,850	2,274,787	4,331,806
VII. Maritime implements, navigation, &c	236	4,786	1	14	2,070,150	351,245	3,992,723	8,268,106
VIII. Mathematical, philosophical and optical instruments	49	337	2	9	105,550	125,440	159,080	537,010
IX. Civil engineering and architecture	554	5,317	97	63	1,606,030	443,511	1,057,808	3,653,398
X. Land conveyances	1,462	8,262	125	99	2,205,432	819,154	2,810,609	6,977,848

XI. Pneumatics, hydraulics, &c	44	511	7	5	99,960	79,465	81,686	691,675
XII. Lever, screw, &c., powers	12	79	1	1	27,950	13,100	41,121	158,700
XIII. Grinding mills, mill graving, &c	1,518	3,634	1,172	109	8,159,940	2,173,853	42,856,563	52,195,426
XIV. Lumber, tools and machines for its use	6,704	21,514	4,274	722	9,951,174	3,004,875	12,206,957	24,208,041
XV. Stone, clay, pottery and glass	865	12,313	146	90	3,895,690	1,132,854	2,243,609	9,494,217
XVI. Leather and manufactures from	3,015	19,342	438	142	4,489,182	956,917	14,921,705	27,370,163
XVII. Household furniture, machines, &c., for domestic purposes	956	9,679	174	67	1,977,279	859,994	3,795,357	9,185,348
XVIII. Arts, polite, fine and ornamental	382	6,981	12	89	2,426,717	2,005,209	3,371,788	8,331,161
XIX. Fire arms, &c., powder and shot	76	593	9	5	172,145	140,640	589,754	992,068
XX. Surgical, medical and dental instruments	36	211	.....	3	111,250	19,000	73,549	255,863
XXI. Wearing apparel, &c	1,010	38,195	27	22	2,504,873	791,649	12,656,115	22,045,229
XXII. Miscellaneous	487	6,190	15	45	1,782,672	1,112,531	5,369,269	8,900,634
Total	24,833	214,899	7,551	2,444	$71,130,407	$35,219,570	$178,394,329	$317,428,331

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FROM
B. P. JOHNSON,
SECRETARY

A

REPORT

ON THE

Agricultural and Other Resources

OF THE

STATE OF NEW YORK.

BY

THEODORE C. PETERS,
STATE ASSESSOR.

TRANSMITTED TO THE LEGISLATURE, JANUARY 7TH, 1864.

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