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# KIND-HEARTED OF ENGLAND!

AS TO

## THE WRETCHEDNESS

OF THE

# IRISH PEASANTRY,

AND

REGENERATION. THE MEANS FOR THEFE

BY JASPER W. ROGERS, C.E.

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This Edition (500 copies bound), has been presented by the Author, as a donation :-- to be sold at the Ladies Bazaar, for relief of the famine in Ireland, and distress in Scotland.

LONDON:

Bound with 2 others)

JAMES RIDGWAY, PICCADILLY.

1847.

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### FACTS

FOR THE

#### KIND-HEARTED OF ENGLAND.

In my twentieth year my first visit was made to London—how long since need not be said, lest I make discoveries. I arrived at the "Swan with two necks," in Lad Lane, to the imminent peril of my own one, on entering the yard of that then famous hostlery, the gate of which barely allowed admission to the coach itself—and first set foot on London ground, midst the bustle of some half-dozen coaches, either preparing for exit, or discharging their loads of passengers and parcels.

Four "insides" were turned out, and eight "outsides" turned in—I, amongst the unfortunates of the latter class, taking possession of the nearest point I could to the coffee-room fire. It is to be recollected that in those days one had but four chances in his favour, against perhaps forty applicants for the interior of the mail—and he who was driven in winter, by necessity of time, to the top of a coach in Liverpool, and from thence to Lad Lane, and found himself in the coffee-room there unfrozen, might be well contented. So felt I, then,—and doubly so now, as I think of the daugers of flood, and road,

and neck, which I encountered in a twenty-six hours' journey, exposed to the "pelting of the pitiless storm,"—for it snowed half the way.

Dinner discussed, and its etceteras having been partaken, in full consciousness of the comforts which surrounded me, contrasted with the discomforts, &c. from which I had escaped,-I sank into an agreeable reverie; and during a vision,-I must not call it a doze,-composed of port wine and walnuts-the invigorating beams of Wallsend coalan occasional fancied jolt of the coach—the three mouthfuls of dinner, by the name, I had gotten at Oxford—and the escape of my one neck, when, goose as I was, I presented it where two seemed to be an essential by the sign of the habitation and the dangers of the gate,-I was aroused by a crash, something like the noise of the machine which accompanies the falling of an avalanche or a castle, or some such direful affair at " Astley's;" and starting up, I thought,-had the coach upset? but, much to my gratification, found myself a safe "inside." Still came crash after crash, until I thought it high time to see as well as hear. "What on earth is the matter," said I to the first waiter I met, as I descended from the coffee-room, and got to the door of the "tap," or room for accommodation of the lower grade of persons frequenting the establishment. "Oh! sir," said he, "it is two dreadful Irishmen "fighting: one has broken a table on the other's "head; the other smashed a chair." I stopped short, and well do I recollect that the blood rushed

to my face as I turned away; I confess, too, that while returning to the coffee-room, when the waiter followed and asked, should he bring tea, I "cockneyfied" my accent as much as possible, in the hope that he should not know I was an Irishman:—such was my shame for my country at the moment.

Many minutes, however, had not elapsed until I felt shame another way-namely, that I should for a moment deny the land which gave me birth; and I at once determined to ascertain the facts and particulars of the outrage. Down I went, therefore, again, and entering the tap-room, found that in truth a table had been broken, and a chair too, not to speak at all of the heads; but, on further investigation, it appeared that the table, being weak in constitution, sunk under the weight of one of the belligerents, who jumped upon it to assail the other with advantage, - and that the chair had been smashed by coming in contact with the table; the gentleman on the ground having thought it fair to use a chair in his defence when his enemy took to the larger piece of furniture :- hence the awful crash, crash—that awoke me from my-vision.

So far well—but further inquiry brought forth further truths. It came out that one of the party had called the other "a beggarly bogtrotter," for which he received in reply a blow upon his nose. Thus the row commenced; but better still, it appeared that one of "the dreadful Irishmen" was

a Welshman! and that it was he who called poor Paddy "a bogtrotter."

First then, said I to myself, the table was not broken on the Irishman's head; it was smashed by the Welshman's foot—and it was not "two dreadful Irishmen," but one, who had been engaged in the fray, and he was insulted; therefore, at the most, only one half of the story is true! And in about that proportion have I since found almost all the stories and charges against the lower class of my unhappy countrymen—and so will others too, who please to investigate facts.

Amongst my earliest introductions to "London Society" was "St. Giles's." Notwithstanding the warnings of my friends, as to the danger attendant even on a walk through its streets, I ventured a little farther; and who ever may have suffered there, I have not, except from witnessing the almost indescribable misery of its inhabitants. Throughout my entire search into its wretchedness, I never received even an uncivil answer but on one occasion, and I am the more desirous to state this fact, because, although "St. Giles" sounds to English ears as a spot contaminated by the abode of Irish only, I found many and many an Englishman there, as wretched as my own wretched countrymen.

In the instance I allude to, I had entered the

first lobby in one of the houses of a most miserable street, where I saw a woman "rocking" in the manner the lower class of Irish express silent agony of feeling. Her body moved back and forward in that peculiar motion which told to my heart she was in misery; and entering the room in silent respect for her suffering, I forgot to knock or make any noise to attract attention. In a moment a figure darted from the side of a bed behind the door, and having caught up something as it passed between me and the entrance, he, for I then saw my assailant was a man, brandished the "miserable remains" of a kitchen poker before my face, and demanded, "What did I want, and how da-ar I come there to throuble thim with my curosity." And what right had I to pry into their miseries, unless to relieve them? I confess my object in visiting St. Giles's then, had not arisen from so pure a motive, and I felt the justice of his demand-The miseries of the heart are sacred amongst the rich: why should they not be equally so amongst the poor? Nature has made original feeling alike in all; but the poor feel more deeply; for the rich suffer in heart midst countless luxuries and efforts from others to wean them from their sufferings, while the poor suffer midst numberless privations, and almost utter loneliness. Why then should I have "throubled thim with my curosity?"

But I made my peace, with little effort too; and then, for the first time, saw a dead body lying on the bed from whence the man had come, "waking," in the Irish fashion of the lower orders. It was a child of about seven years old. Its last resting place on earth was dressed with flowers, and the mother' hand had evidently done the most within its feeble power to give honour to the dead. Rising, she with her apron rubbed the chair she had been sitting on, and placed it for me; thus offering, in her simple way, the double respect of tendering her own seat, and seeking to make it more fit for my reception by dusting it.

I need not repeat all the tale of misery, the cause of their suffering then, was apparent. "She was "their last Colleen—th uther craturs wur at home "with the Granny," and "he had cum to thry his forthin in Inglind; an' bad forthin it was. But "the Lord's will be done, fur the little darlint was happy, any how—an' sure they had more av thim "at home—an' why should she be mopin' an' cryin' her eyes out for her Colleen, that was gone "to God!"

Thus the poor creature reasoned as she cried and blamed herself for crying; for miserable as she was, she evidently felt that she should be thankful for the other blessings that were left her. Do we all feel thus? Yet, at the moment that she did so, I believe there was not a morsel of food within reach of her means, and that her last penny had been spent to deck with flowers the death-bed of her child.

It is needless for me to describe the general miseries of "St. Giles," — now no more. Its

wretched habitations have yielded their place to palaces; its dreaded locality lives but in recollection; and its inhabitants have gone forth—Whither? Perhaps to greater wretchedness. Aye, almost surely! The misery of St. Giles' has ceased, mayhap to make misery double elsewhere; but, thank God! there no longer exists in London a special spot upon which the ban is placed of Irish residence being tantamount to crime.

Years and years have since gone by, and many a time the story of "the two dreadful Irishmen" has risen to my mind, as I have read paragraph after paragraph in the English papers, telling of some direful thing which had occurred and was wrapped in mystery, but concluding after the following fashion:—

"HIGHWAY ROBBERY—(Particulars). There is no clue whatever to discover the parties who committed this atrocious act – but two Irish labourers who live in the neighbourhood are, it is supposed, the delinquents!"

"Burglary at - (Particulars). The parties who committed this robbery acted in the most during manner. The country is now filled with Irish harvest labourers!"

"FOOTPAD.—A during attempt was made by a most desperate looking man to rob a farmer some days since—
(further particulars) after a great struggle he got off. He is supposed to be an Irishman!"

"MARLBOROUGH-STREET.—There is a class of persons now known, called "Mouchers," who go about in gangs, plundering the licensed victuallers, eating-house and coffee-shop keepers, to an extent that would be deemed impossible, did

not the records of police courts afford sufficient evidence of the fact. The Mouchers are mostly of the lower order of Irish."—London Morning Paper, 12th April, 1847.

"Horrible Murder—(Particulars). Every possible search has been made for the murderers, but unfortunately without effect. However, it is positively known that four Irish harvesters passed through the village the day before, and there cannot be a doubt the dreadful deed was committed by them?"

Such are the kind of announcements seen frequently, particularly in provincial papers. In the latter case, the facts impressed themselves strongly upon my mind. A horrible murder had been committed, as well as I recollect, in Lancashire. widow of a farmer, much beloved in the neighbourhood, and known to possess considerable property, was barbarously murdered in her bed at night, and her presses and strong box thoroughly rifled; nothing, however, having been taken but money, of which it was known she had received a considerable sum a few days previously. Much sensation was created by the fearful occurrence; and it was fully believed that "the four Irishmen" had committed the murder - why? because they had been seen in the neighbourhood! verifying most fully the adage, that "one man may steal a horse without being suspected, while another dare not look over the hedge." So it eventually turned out. A month elapsed; the four Irishmen could never be traced; but luckily the real murderer was. A labouring man offered a £20. note to be changed in a town some miles distant from the scene of the murder.

and suspicion having arisen as to how he obtained it, he was taken up: eventually turning out to be the confidential farm servant of the unfortunate woman, still continuing to live unsuspected where the murder had been actually committed by himself; and he was subsequently executed.

But did this clear "the four Irishmen" from the imputation, or retrieve the character of their class? Not an iota. The journalist who accused them was not the fool to proclaim his own injustice; and perhaps, even if he did, the refutation would never have met the same eye that read the condemnation. No; "the four Irishmen" continued as thoroughly guilty in the public mind as if twelve jurors on their oaths had declared them so. The editorial pen had signed the death warrant of character, if not of life, as it has done in many and many instances with just as much foundation.

Poor, unhappy "Paddy" the labourer has had years and years of outcry to bear up against and suffer under, a thousand times more trying to him than that now raised against "Paddy" the Lord. The poor and lowly struggle single-handed and alone; the rich and high face the enemies of their order shoulder to shoulder, and as one. Poor fellow, he is like the cat in the kitchen: every head broken is as unquestionably laid to his charge, as every jug to pussy's. And he has another direful mark which stamps him at once; namely, that "profanation to ears polite" his broque! He possibly may not look ill to the eve—perhaps the reverse; his

countenance may be honest and open, and his bearing manly, as he approaches an employer to seek for work; up to that point all goes well, perhaps; but once his mouth opens, the tale is told; instantly Prejudice does her office, unknowingly almost, and unless actual need exist, Paddy may apply elsewhere, again and again to meet the same rebuff. Lancashire, Somersetshire, Yorkshire, may revelin their patois without raising a doubtful feeling or a smile, but the brogue of Ireland does the work at once, and the unhappy being from whom it issues slinks back into himself degraded, as he hears the certain laugh which answers his fewest words, and the almost certain refusal to admit him within the pale of his class in England. Hence St. Giles's as it was-the purlieu of Westminster, as it isthe Irish labourer's refuge in England, is often the lowest point, because he cannot be driven lower.

And all this arises, not from ill will, but from long felt prejudice, and the repetition of stories and anecdotes and caricature of Irish character, which trifling circumstances have given rise to and upheld; and which, I grieve to say, is greatly due to the domiciled Irishmen in England, of the middle and better class. They sometimes forget their country, and in place of explaining away fallacies and making known facts which would have roused England long since to our aid, had they been fairly understood, fear to tell truths which they deem to be unpalatable, while perhaps their own palates are being feasted on the good things of the party

who declaims against their country: thus permitting the continued existence of prejudice and consequent estrangement.

It is in no small degree amusing to observe the attempt made, in addition, to disguise the fact that the delinquent I speak of (I had almost written renegade) is an Irishman. No wonder that he should attempt the disguise, for he must deeply feel his delinquency. In all cases such as this, the Cockney twang and occasional curtailment is assumed to overcome the broque, but in vain. For the first half dozen words of each paragraph in a conversation it gets on well enough, but the conclusion is sometimes exquisitely ridiculous.

I had the honour to meet at dinner recently, a person of this class, and a conversation having arisen on the subject, he said, "I aam pe-fectly ce-tain no one caaen know that I aam an I-ishman;" and the next instant, turning to a servant, he added, "Po-ta, if you plaze." When this thoroughly lowbred Irishism came out I could not help smiling, and caught at the same moment the eye of a lady opposite, who seemed greatly amused. In a few minutes after, she said, evidently for the purpose of having another trial of the Anglo-Irishman, "Pray, may I help you to a potato"—the killing reply was, "Pon my hona' I neva' ate pittatis at all at all."

This was too much for the lady, as well as for myself; so we laughed together. The Irish gentleman, however, perfectly unconscious of the cause.

Having subsequently mentioned the circumstance

to an "Irishman in London," who does not fear to acknowledge his country, he said, "O! the feeling descends lower still—the better class of labourers attempt to speak so that they shall not be known." Continuing, he said, "A porter in our establishment, who is an Irishman, came to me the other day, and speaking very confidentially, whispered, 'Sure now, Misthur——, you woudn't guiss be me taulk, thit I wus an Irishmin." "Certainly not," said my friend, laughing, when the fellow replied, quite happily, "Whi-thin that's right any how."

Who will excuse the man in a better grade who panders to prejudices, and not only forgets the country of his birth, but aids, by consent, to let her remain in misery. But must we not excuse the low and helpless, who are driven by such prejudices to keep themselves in existence by following the example of those above them? who, thus, have double sin to answer for; their own, and that which their dastardly conduct creates. Still, why should the unhappy labourer who feels that the tone of his voice keeps bread from his mouth, not wish it changed.

"Move on," said a policeman to a poor Irishman, who was gazing with astonishment at a shop window in the Strand, his eyes and mouth open equally, with intensity of admiration. But Paddy neither heard nor moved. "Move on, Sir, I say," came in a voice of command delivered into his very ear. "Arrah, ph-why?" said the poor fellow, looking up with wonder, and still retaining his place. "You

must move on, you Irish vagabond," now roared the policeman, "and not stop the pathway," accompanying the "must" with a push of no very gentle nature. Paddy did move, for he could not help it; but as he turned away from the sight which was yielding him harmless enjoyment, to the forgetfulness of misery for the moment, and perhaps to create in him desires for better things, and give him greater energy to work and labour for them; he was rudely branded with a mark of debasement, and I could see in the poor fellow's eye and gait, though labourer he was, pride and degradation contending for the mastery; but the latter conquered, and he did "move on," almost admitting by the act that he was "AN IRISH VAGABOND."

The position of the lower class of Irish in England is evidently not to be envied, but what is it in Ireland?

In the paper annexed, on "The Potato Truck System of Ireland," will be found the ground work of the misery of the peasantry. The whole recompense for their labour is the potato. If it fail, they starve. In summer's heat and winter's cold the potato is their only food; water their only drink. They hunger from labour and exertion—the potato satisfies their craving appetite. Sickness comes, and they thirst from fever—water quenches their

burning desire. Nature overcomes disease, and they long for food to re-invigorate their frame. What get they?—the potato! The child sinks in weakness towards its grave. What holds it betwixt life and death?—the potato. It is the Alpha and Omega of their existence. A blessing granted by Providence to man, but made by man a curse to his fellow-beings. From what causes come the charges made, and made with truth, against the Irish peasant, of "indolence" and "filth in and about their habitations?"—One and all from that dreadful system, the "potato truch!"

Tourists tell that "the cabin of the Irish peasant must be approached through heaps of manure at either side, making it necessary to step over pool after pool, to reach the entrance." This is no more than fact, but the cause should be told too.

From the detail of the truck-system, it will be seen that the unfortunate peasant is paid for his labour by land to cultivate the potatoes which sustain his existence, and these potatoes cannot be effectively grown without manure. His cabin is usually situate on some road-side, his potatogarden rarely with it, and the only spot he possesses, upon which he can collect manure to obtain food for himself and family throughout the year, is the little space reserved before his door. He has nothing else, it may be said, in the world, but that manure. It is that which is to yield sustenance to his family, and if he have it not, they

starve. If put outside the precincts of his holding it is lost to him, and that which he collects scrap after scrap from the road side, or elsewhere—that upon which his life actually depends, is too precious to be risked beyond his care. Why should he be blamed then for the apparent "filth" which surrounds it. Whether is it his fault, or that of the system which has driven him to this degrading necessity? Not his, surely!

Then he is described as to be seen "supporting his door-frame, and smoking his 'dhudeen,' while he should be at work." It is true; but whence his seeming idleness? The truck system again! He is engaged by the year to some farmer, and is bound to do his work, for which he gets his potato land; but the farmer is not bound, as he should be, to give him continuous labour throughout the year. And many a day, and half-day, and quarter-day is cut off his year's labour, when the weather, or the farmer's absence, or his mighty will and pleasure, may make him think it fit to stop the work. When this occurs, and it is sadly frequent, it is impossible the poor labourer can either seek or find a half, or even a whole day's labour. He has no garden, or patch of ground upon which he might expend with profit his leisure, or his extra time; he has nothing to occupy him; nor can he make an occupation perhaps, for he has not the most trifling means to obtain even lime to whitewash his

<sup>\*</sup> Short tobacco-pipe.

Then, if he do smoke his "dhudeen, leaning against his door-way," where so proper for him to be, as with his wife and children? And is the so-named "weed of peacefulness" sought for by the highest in the land as a soothing enjoyment; by those who have but to wish for and obtain every luxury and blessing that wealth can give-is the scanty use of the meanest portion of it, improper or slothful in him who knows no single blessing but his wife and family? But it cannot be fairly deemed so. The custom is universal, and the Irish peasant, declared by the Legislature it may be said, to endure more privation than the peasant of any other country in Europe, ought not to be set down as slothful, because, to soothe his care, he smokes his "dhudeen."

Again, we are told by tourists of the fearful fact, that men, women, children, a cow, a horse, a pig, congregate together at night in one cabin; one bed for all! How dreadful the truth—for it is true to the letter. But we are not told the cause; on the contrary, subsequent commentary ascribes the fact, in no gentle terms, to the "slothful, filthy habits of the people." Yet, when such realities exist, it is not wonderful that they who so patiently bear, should be set down as the producers of their own misery—still they are not only not so, but they have no power to release themselves from the thraldom which sinks them day by day deeper in degradation.

Once more I return to the truck system of the potato. If 4,000,000 of the people of Ireland have sustained life, and barely, on that root alone-many and many a day without even salt-how well may it be understood that they have not means to buy proper clothing. In fact, their only hope for this, is on "the woman," as they express, whose sole dependance has been on eggs from her few hens -knitting stockings, in some localities, in others, spinning. But the numerous calls for family necessities swallow up these little means; and it may with truth be said, that except a single blanket, or a coarse rug, there is rarely to be found any thing in their cabins as covering for the night. The clothes of all are clubbed together to do the office of the blanket and the counterpane. Then, think of the cabins they live in. In one county alone, Mayo, there are 31,084 composed of one apartment only, without glass windows, and without chimneys; and the door so frail and badly made, that every blast finds its way through it. The, floors are mud, the beds straw or ferns strewed sometimes on stones raised above the ground. father and mother sleep in the centre, the children at each side, and the pig and horse, or goat, as may be, at one end. How dreadful it is to contemplate that such should be a fact existing in a Christian country-and worse, that this most fearful reality, which arises from the people's helpless misery, should be made a charge of " filthy

habit" in place of being urged as the ground-work for the perfect change of a system which could allow so crying an evil. It is a truth, that men, women and children, pigs and cattle, lie in one bed!—but what causes it? Their hopeless, helpless, poverty. They have not a sufficiency of clothes to cover them at night in winter; and if they did not bring in the pig and cattle to create warmth in their cabins, they must perish of cold. This is the cause, and the only cause, and the true proof is, no tourist will pretend to tell you it occurs in summer.

Having now seen what the lower class of Irish endure, it may be well to look into their natural character, and ascertain what is the cause of that endurance—what are their virtues, and what their vices?

That "endurance under privation, greater than that of any country in Europe," is the true characteristic of the peasantry, cannot be questioned, particularly after being declared by the high authority of the Devon Commission. That it is innate in their character, is evident. They believe that "whatever is, is best"—not as fatalists; for under the most severe suffering, you will hear them say, "Well, shure, it's a marcy 'twas'nt worse any how." "Well, I'm shure, I might be contint, bekase it might be double as bad." And every sentence ends—"And God is good."

They have also a certain natural spring (lessening daily) which upholds them, and they try to make the best of every thing as it comes.

"Jack," said I, some years since, to a handy 'hedge carpenter,' in the county of Wexford, "why did you not come last night to do the job "I wanted? It is done now, and you have lost it." "Whi-thin, that's my misforthin any how - an "be-dad 'twas a double misforthin too, for I wus " dooin nothin else thin devartin meeself." "Di-" verting yourself," said I, "and not minding your " business?" "Bee-dad it's too thru; but I'll "tell your hanur how it happened. I wus workin " fur the last three days fur my lan'lady, which av " coorse goes agin the rint; and whin I cum home " yisterday evenin, throth, barrin I tuck the bit " from the woman and childre, sorra a taste I could "get-so sis I, Biddy jewel, I'm mighty sick in-"tirely, an I cant ate any thing. Well, she coxed "me-but I didnt. So afther sittin a while, I " bethought me that there wus to be a piper at the " Crass-roads, an I was thin gettin morthul hun-"gery; so sis I t'meeself I'll go dance the hunger " off-and so I did: - an that wus the way I "wus divartin meeself." Now, I have no doubt, that many an Irishman has danced the thought of hunger away as well as Jack. But the following incident will prove that the innate feeling of the people is to make the best of their miseries.

It was, I think, in the winter of 1840, a fortnight of most severe weather set in at Dublin. I had

suffered in London from "Murphy's coldest day" in 1838, and thought it was in reality the coldest I had ever felt; but 1840 would have won the prize if left to his Majesty of Russia to decide the question. In addition to a black frost, there came with it a biting, piercing, easterly wind, which seemed to freeze and wither every thing it came upon. Pending this infliction (for I confess I suffered under sciatica as well as the easterly wind), I left home rather early one morning, muffled in two coats, a cloak, muffler, "bosom friend," worsted wrists, and woolsey gloves; and yet as I closed the door, I half repented that I had faced the blast.

Not twenty yards from my dwelling, I overtook a little creature, a boy of about eight or nine years old, dressed in—of all the cold things in the world—a hard corduroy habiliment, intended to have fitted closely to him; but his wretched, frozen-up form, seemed to have retreated from the dress, and sunk within itself: I believe he had not another stitch upon him. His little hands were buried into his pockets, almost up to the elbows, seeking some warmth from his body; and he crept on before me, one of the most miserable pictures of wretchedness my eye ever rested on.

As I contemplated him, I could not but contrast my own blessings with his misery. I had doubted whether I should leave the comforts of my home, although invigorated by wholesome, perhaps luxurious food, and I was clothed to excess; while the

being before me, likely had not tasted food that day, and was barely covered. Such were my thoughts; and I had just said to myself, we know not, or at least, appreciate not, a tithe of the blessings we possess, when that little creature read me a lesson I shall recollect for my life. He shewed me that he could bear up against his ills, and make light of them too.

At the moment I speak of, I saw one hand slowly drawn from his pocket, and in effort to relieve it from its torpor, he twisted and turned it until it seemed to have life again. Next came forth the other hand, and it underwent the same operation, until both appeared to possess some power. Then he shrugged up one shoulder and the other, seeking to bring life there also; and at length flinging his arms two or three times round, he gave a jump off the ground, and exclaimed in an accent half pain, half joy, "Hurrah! for the could mornins!" -and away he went scampering up the street before me, keeping up the life within him by that innate natural power of endurance I have described, evidently with a determination to make the best of his suffering, and not sink under misfortune. What a noble trait of character-but how little appreciated!

With such a ground-work to act upon, what might not these people be made? and that they have intellect of almost a superior order, cannot be questioned. Their ready replies alone prove it; and their usual success any where but in their own

country, tells it truly. Some years ago I stood talking to an English gentleman on particular business at a ferry slip in Dublin, waiting for the boat. A boy, also waiting for it, several times came up to shew some books he had for sale, and really annoyed my friend by importunity, who suddenly turned round and exclaimed, "Get away you scamp, or I shall give you a kick that will send you across the river." In an instant the reply came-" Whi-thin thank yur hanur fur thit samefur 'twill just save me a ha-pinny." They are quick to a degree—and have great activity and capability for labour and effort, if but fed, which may be seen by every Englishman who looks and thinks. The coalwhippers of the Thames, the hod-men, or mason's labourers of London, the paver's labourers, and such like, almost all are Irishmen. But they must be fed, or they cannot labour as they do here. Treat them kindly, confide in them, and be it for good or evil, I mean to reward or punish, never break a promise, and you may do as you please with them. My own experience is extensive; but one who is now no more, my nearest relative, had forty years of trial, and he accomplished by Irish hands alone, in the midst of the outbreak of '97 and '98, as Inspector-General of the Light-houses of Ireland, the building of a work, which perhaps more than rivals the far-famed Eddystone, -namely, the South Rock Light-house three miles from the land, on the north-east coast of Ireland,—every stone of which was laid by Irish

workmen. And to the honour of the people be it spoken, when the rebellion broke out it was known that a large stock of blasting powder and lead lay at the works on the shore; yet not a single ounce of one or the other was taken. It was known, too, that their employer was then engaged in the command of a yeomanry brigade, formed for the defence of the east side of Dublin; still his lead and powder lay safely in the north of Ireland. But more extraordinary still, after the battle of Ballinahinch, where the rebels were routed, his yacht was taken by a party of them to make their escape to England; and lest any ill should befal it, when they arrived at Whitehaven they drew lots for three to deliver it up to the collector of the port, and state to whom it belonged. They were immediately arrested, as indeed they must have expected, and with great difficulty were their lives afterwards saved.

I could relate several similar instances which occurred to others; but I shall only state one more, as occurring to a defenceless woman. My maternal grandmother occupied at the time of that rebellion the castle of Dungulph, in the county Wexford, the family residence. It was an old stronghold regularly fortified and surrounded by a moat, with a drawbridge; and when she left it to take refuge in the fort of Duncannon, with the other gentry of the county, it was immediately taken possession of by a force of rebels from the county Kilkenny, as a most valuable place of defence, &c. They remained in pos-

session for about a fortnight, and during that time killed twenty of the sheep found in the demesne. At the expiration of the period, the rebels of the neighbourhood, who had been in the interim engaged at the battle of Ross, returned, forced the others to leave the castle, and when my relative came back to her residence, she found that twenty sheep had been brought from another part of the country, and placed with her own in the demesne; which on being traced by their marks, were discovered to belong to a county Kilkenny grazier, the county from whence the rebel party had come; thus the sheep were brought from the same place the rebels had come from,—it was supposed, as an act of retaliation. I should add, too, that while these occurrences took place, the heir to the property was engaged in the defence of Ross, where many of his own tenantry were slain or wounded, as rebels, by the military under his command.

Naturally the mind of the Irish peasant is good, honourable, and grateful—but it has been deteriorated by miseries and neglect; and is being so, more and more daily at home; while, when they go abroad they seem to inherit all their original good qualities.

It is a fact too, known to all who know them, that when they settle in England as labourers, they almost invariably share their earnings with their relations at home. The remittances from London alone to Ireland amount to many thousands yearly. There is no possible means of as-

certaining the sum; but I know numerous instances myself, and it may be judged of from the facts which appear in the following statements, recently published in the *Times* and *Morning Chronicle*, shewing the amount which comes yearly from America.

"A curious fact is presented in a letter from a correspondent at New York, showing that it is not to England alone that the Irish proprietors are largely indebted for the support of their poor. It has generally been understood that the Irish emigrants to the United States have always remitted very fully of their hard earnings to their relatives at home, but most persons will be surprised to hear the extent of this liberality. "A few days since," says our correspondent, "I called upon the different houses in New York who are in the daily practice of giving small drafts on Ireland, from five dollars upwards, and requested from them an accurate statement of the amount they had thus remitted for Irish labourers, male and female, within the last sixty days, and also for the entire year 1846. Here is the result-Total amount received in New York from Irish labourers, male and female, during the months of November and December, 1846, 175,000 dollars, or 35,000/. sterling; ditto, for the year 1846, 808,000 dollars, or 161,600l. sterling." These remittances are understood to average 31. to 41. each draft, and they are sent to all parts of Ireland, and by every packet. "From year to year," our correspondent adds, "they go on increasing with the increase of emigration, and they prove most conclusively that when Irishmen are afforded the opportunity of making and saving money, they are industrious and thrifty. I wish these facts could be given to the world to show the rich what the poor have done for suffering Ireland, and especially that the Irish landlords might be made aware of what their former tenants are doing for their present ones. I can affirm on my own responsibility that the amount stated is not exaggerated, and also that from Boston, Philadelphia, Baltimore, and New Orleans, similar remittances

are made, though not to the same amount." With regard to the feeling in America upon the calamity under which the Irish people are at present suffering, the same writer observes: "Collections are being made for their relief, but the distress is so general that our benevolent men have been almost afraid to attempt anything; they think the British Government and Irish landowners alone competent to the task."—Times, 3rd of Feb. 1847.

"American Sympathy.—We do not think we can better express the sympathy which is now so universally felt in the United States, for the sufferings of the people of this country, than by stating that immediately after the news brought by the Cambria had been promulgated, 1,500 passages were paid for by residents in New York, into the house of George Sherloch and Company, for the transmission of their friends in Ireland to the land of plenty. Through the same house, by the last packet, there have arrived remittances to the amount of 1,300l., in sums varying from 2l. to 10l."—Dublin Evening Post.—Morning Chronicle, 5th of April, 1847.

As to the vices\* of the Irish peasant, a few years since they might have been set down as three—whiskey drinking, cupidity, and combination. The first exists no longer, and if we seek for proof of good intention and desires in the people, this gives it forcibly. Having food of but one kind, and that possessing no stimulating power, nor capability of imparting grateful warmth, such as the "brose" of the Scotch, or the soup of the continental peasant; and the climate being cold and humid to excess, they naturally, it may be said, used the only stimulant they could obtain. And if we think how anxiously

<sup>\*</sup> See Comparative Statement of the Crimes of England and Ireland, in "The Appeal for the Irish Peasantry."

we seek such, under the influence of wet and cold, (we, who have all comforts and all varieties and luxuries of food)—can it be wondered that the Irish peasant, who working for the day in a winter's mist, his clothes saturated through, and none to change when he returned to his wretched cabin, should have been tempted to take this stimulating poison. But, by the gentle guidance of one good and great man, they have been led from the evil, receiving no substitute for what they relinquished; getting nothing in return, they gave up their only luxury at his bidding. What may not be done with such a people?

But the peasant has two vices which still continue-cupidity and desire for combination. Strange that amongst all the evils laid to his charge the first has been passed over. It exists to a great extent, and in place of being reckless as to money, he too eagerly grasps at it when the opportunity offers; hence the combinations which have at different times occurred in the accomplishment of public and also private works. He mars his object by his ignorance. This has arisen principally from the unfortunate frequency of public undertakings, caused by famines or distress. In any such case he took it, to use his own expression, as a "good luck," and sought by any means to make the most of it while it lasted. Then, in private works, when he imagined a necessity existed for their accomplishment, he sought to make the most by demand-

ing higher wages, and forcing the well-inclined to join in the demand. It is a fact that he suffers under natural cupidity, and its evils have been increased by the circumstances named, the effects of which will require care to overcome, if his regeneration be attempted; and, perhaps, under all circumstances, it cannot be wondered at. The opportunity to obtain money for his labour so rarely occurred, that when it did he could not resist the temptation of getting as much as possible to provide against the day which he knew would soon come again, when he would be left to the potato alone; and on this point he will require to be led and taught as in other things. But the Irish peasant is, in fact, now in that position which it is fearful to contemplate. From the nature of his food alone he has been long retrograding in physical capability, and, of course, energy of mind. It is impossible that beings living entirely upon one description of food, no matter what it be, can exist in strength and healthfulness. But if the food be of that nature which, used as the potato is, tends to produce evil from the quantity necessary to be consumed, in order to give to the body bare nourishment to uphold existence, it must be evident that the very quantity alone will produce listlessness and want of energy, while the system itself receives scarcely enough to uphold its vital powers.

My own memory (and I am not so old as to count half centuries) shows an evident change in the general physical appearance and capacity of the peasant labourer. He is not the same, even within twenty years; and to those who recollect fifty, the alteration must be painfully great.

A little thought will shew it could not be otherwise. The potato, eaten in the way it is, simply boiled, and as I have again and again pointed out, without aught else with it but salt! and not even that sometimes, contains but little more than two pounds weight of that description of nutriment (gluten, or animal matter) which is essential to uphold strength, in fact to re-create bone and muscle in the system, for every hundred pounds weight, the unfortunate being condemned to live upon it solely, is obliged to gorge himself with, in order to sustain his animal powers.

The average quantity of potatoes an adult peasant labourer consumes in the day is about ten pounds—his meal being usually a quarter of a stone each at breakfast, dinner, and supper; thus he receives into his system every twenty-four hours, about 3 ounces of that which is essential to give him power to perform his functions of labour. In other words, he eats in that time but 3, ounces of the representative of meat. What would the railroad "Navvy" of England say—what the farm labourer—if either was doled out 3 ounces of beef or mutton per day to work upon? and if he seemed listless and unenergetic, was then taunted with the name of "indolent, rechless, good-for-naught."

Still, my unhappy countrymen have received this quantum of food, with submission for ages; and with it received those degrading appellations, as a fitting reward for their "endurance."

Now, medical research has fully established that the quantum of animal matter, be it obtained from vegetable or else, actually necessary to be taken into the system merely to reproduce the bone and muscle worn away by the general labourer in his day's work, is 5 ounces! It cannot therefore be doubted, that the Irish labourer, in Ireland, is and has been deteriorated in physical capability, and consequently, mental energy, by\* want of proper nutrition.

Such has been his position for ages; and my firm belief is, that his sufferings would not have been so long borne, but for the hope which has been, from time to time, kept alive in him. Alas, how delusively! In "Emancipation"—he was taught to see deliverance from his miseries—mayhap, remission of his rent. In "Repeal"—" plenty "of work and plenty of money; and the cattle "kept at home, and the pigs to be eaten by him-" self, in place of by the Saxon."

Unhappy designation, and unhappy delusion, which have held the countries asunder, in place of being one and the same in all things. But he has lived upon that hope, until now, when it has vanished from him for ever. And with his hope, the food that kept life barely in him has gone too.

He is bereft of all that holds existence and soul together, and sees nought before him, even if he do live, but ceaseless struggle and ceaseless misery. Can such a being aid himself? No more can he, than the invalid, weakened and powerless from sickness. Aid must be given him by those who have strength and knowledge, or he will sink, if not into death, to that which will be worse,—hopeless, helpless degradation.

And will Ireland then be "the right arm of England?" No; she will be the blot upon her noble scutcheon—mayhap the "millstone" to sink her in that ocean over which she now so proudly and gloriously rules.

It has been proved that above 4,000,000 of the peasantry of Ireland live upon the potato, which they receive as payment for their labour-about, or nearly one half of the population of the country, and from whom should, and now does spring its almost entire wealth. Their hands, with God's permission and will, produce the means to feed themselves; to feed the remaining half of the population, and to give to England many millions' worth yearly; which supports the aristocracy of Ireland, and pays the taxes to the nation. Humanity and justice, then, are not the only claims upon us; self-interest, nay, selfpreservation demand, that they who yield us food and comfort, should have ample food and comfort themselves-that they who aid to clothe us should have at least sufficient covering to protect them

from the rigour and humidity of the climate in which they labour-that they should have houses fitted for the inhabitants of a civilized country, not wigwams worse than those of the savage—that they should be taught and led and fostered till they understand and can practise at home the arts of proper industry-to give not only blessings to themselves but the nation at large. Then would Ireland be in truth "England's right arm;" but more, she would have her heart, which now lies open, yearning to receive and give affection. I know my country and its feelings well-I mean its people's feelings; and there exists not elsewheremore genuine gratitude than in its heart. Causes and circumstances already explained have encased it in icy doubt towards England; but now England has proved her heartfelt pity; not alone her money, but the kind and high and nobleminded have risked their lives to distribute food and help and covering to the wretched beings as they lingered between life and death. And I know the people not, if I may not vouch, as a man and Christian, that every mouthful given (not through public works), every comfort yielded, every gentle and kind and consoling word uttered, is indelibly impressed upon their feelings, and will live there. Seize, then, the opportunity to amalgamate as one, Ireland with England's Fear not the idle stories of the past; look but upon the present, and think of the glorious future which the guidance and help of England

may accomplish. England has laboured for, and won her glories by her labour. Teach Ireland, and she will win glories too—not for herself alone, but for the general weal. Lead her kindly now, and she will rush to your foremost ranks in the hour of danger—not pray for that hour, that it may give her chance of rescue from her misery.

Shall I conclude, and rest in hope of general sympathy. No; although it has magnificently proved itself.

History gives some thousand facts to shew that man is led to good by woman; deprived of her gentle guidance towards that good, he usually sinks to evil. Unchecked by the example of her patience, gentleness, and faith, he often revels in thoughtless wantonness, — while, resting under the beaming influence of her love and sympathy, he melts and is moulded into a form approaching her own. Happily for Great Britain, this peaceful, blissful influence sheds its beams over almost all men's destinies, hence its public virtues, its private happiness; and hence the cause of my present appeal to the Ladies of Great Britain!

Pardon me, fair Ladies! if I approach you on that which may be deemed "a matter of business;" but I am not of those who consider woman's mind unfitted for the toils and difficulties of life and only

made for its pleasures far the reverse. Nor shall I yet approach you under the sweet incense of flattery, said to be a cloud which gives to you a grateful odour-I believe it not. Nor shall I, to tell you of the prowess of man in his deeds of arms; nor of his glories midst the slain or dying; for, thanks to God! the heart of an Englishwoman shudders at the thought. Man shall not be my theme. I come to tell you of the ills and sufferings of unhappy Women !- beings like to yourselves, in gentle and good feelings, though poor-like to yourselves in love and affection, though wretched-Woman, in truth, kind, affectionate, and good; blessings to their own-Woman in all things, but in that which is her due and right in Great Britain-care and respect for her sex and virtues. Those whose cause I plead are blessed with as pure and spotless bosoms as your own-though one may be cased in russet or in rags, the other enshrouded in lace-and they die, not through the horrors of war, or of plague, but of starvation and of cold.

In my description of the cottage of the general peasantry, you will have seen, and I doubt not recollect the fact, that upon some 2,000,000 of your sex in Ireland is entailed the degradation of passing the hours of her rest with the family, all in one restingplace, and getting warmth by being forced "to herd with the beast of the field." Think of this indignity and say shall it longer exist?

To you is due the final accomplishment of one of

Indian slavery. The battle was commenced by man, and fought manfully; but without your aid he could not have conquered as he did. Your generous voices cheered him on, and he became invincible. And so will it ever be in Great Britain. O! give but the same aid now, and you will accomplish at least an equal good.

If of the aristocracy, tell to those whose halls you adorn, that the peasant woman of Ireland can only obtain warmth enough to save her from perishing, and give her sleep, by herding with her pig! Say, Woman sleeps thus! and ask, should it be? Mayhap when Woman in her loveliness and power thus pleads for Woman in her misery and poverty, the chord may be struck which will proclaim the sin, and produce its abolishment.

If the mansion of the wealthy be guided or blessed by thy residence, proclaim the fearful fact, and whispering ask, "For what does God give wealth?" The answer may not come at first, or for a time; but whisper again—and 'tis said that angels' whispers fill the air with charity and love. So, perhaps, will thine—and wealth may at thy bidding aid to rescue Woman from such degradation.

If the middle class (from which England's greatness springs), claims thee as its own, tell to all around the truth which tells of Britain's shame that the Irishwoman is forced to herd with cattle! Plead, and say—Am I not a woman, and is she not my sister? And by degrees thy pleadings will strike man's heart, for the thought will come upon him—"Oh! that one I love should fall to such a lot," and his voice will join thine in truthfulness and charity, to win others to the task of rooting out the evil.

If thou art poor, I need not plead. The poor feel for the poor, and spare even somewhat from their poverty. Their hearts can tell the pangs of poverty, and pity fills them with love and charity and regret that poverty makes them powerless. But still thou hast a voice. Raise it, and cry shame on those who may, yet will not save the nation from the stain of this deep indignity to woman!

And how, you may ask, is this to be done? Most simply. Ireland possesses wealth in soil—in fuel—in minerals—in fisheries—in water-power—in short, in all things fitted to be developed by the great and wonderful business capability, knowledge, and capital of England; but the latter has feared without just reason—has been acted upon by groundless prejudices and dreads, so as to prevent that business intercourse and mercantile enterprise, for which Ireland offers such beneficial opening; and she has been left to herself, to anarchy, misrule, and neg-

lect, until she has sunk into pauperism. In a word, let England but embark a just portion of her enterprise and capital, and talent in Ireland, in place of seeking for opportunity to do so abroad. In doing this, she will employ the people in useful occupations highly profitable, and in proportion as such be done will Ireland's poverty vanish, and Great Britain's wealth increase. Ask for this;—and that the peasant labourer shall be paid in money, not potatoes. And if you ask from your heart, you you will succeed.

Then, fair pleaders for my countrywomen!—then your labours may cease—for even those who possess your affections do not, nor cannot, value them more highly; nor those who hold you in their hearts do not love more truly, than the peasant of Ireland. Your labours may cease—for it will then be his labour of love to guard and protect his own from insult and indignity. And as you rest after your glorious victory, your pillow mayhap will not even crease by the pressure of the fair cheek upon it, so light and so sweet will be the sleep to follow so kind and good a work.

#### SECOND EDITIONS

OF THE FOLLOWING PUBLICATIONS, VIZ.

#### "THE POTATO TRUCK SYSTEM OF IRELAND

THE MAIN CAUSE OF

#### HER PERIODICAL FAMINES."

AND

"AN APPEAL FOR THE PEASANTRY OF IRELAND,

WITH THE OBJECTS OF

#### THE IRISH AMELIORATION SOCIETY,"

ARE PRESENTED HEREWITH.

- The former shows that the want of money-payment to the peasant, who obtains labour, is the cause of all his misery.
- The latter points out a simple mode of employing the surplus labour of the country; and of obtaining from that labour, means to ameliorate and permanently improve the condition of the people of Ireland,—
- WHOSE CRIMES ARE PROVED, FROM PUBLIC RECORDS, TO BE MUCH LESS THAN THE RATIO OF ENGLAND.

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# OF IRELAND

THE MAIN CAUSE

OF

#### HER PERIODICAL FAMINES

AND OF

THE NON-PAYMENT OF HER RENTS.

HY

JASPER W. ROGERS, C.E.

SECOND EDITION.

LONDON:

JAMES RIDGWAY, PICCADILLY. 1847. er experie

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#### NOTE.

From Letters on the Condition of the People of Ireland.

BY THOMAS CAMPBELL FOSTER, Esq.

"Very much of the apathy and indifference which marks the Irish labourer in his country, may, I think, be traced to the fact that he rarely handles money. His year's labour is often bought with an acre of con-acre land for his potatoes. For this be will often work a whole year for a farmer, 'riding the dead horse,' and wiping out his debt. He rarely feels the stimulus of present reward, and he is unused to consider the relative value of money, and how it can be best laid out. This may account for the absurd value which he often attaches to the most trumpery articles, and for the folly with which he often wastes money, when he has it. In Galway I was assured that so little do the people know the commercial value of money, they are constantly in the habit of pawning it. I was so incredulous of this, that the gentleman who informed me, asked me to go with him to any pawnbroker's to assure myself of the fact; and I went with him and another gentleman to a pawnbroker's shop kept by Mr. Murray, in Galway. On asking the question, the shopman said it was quite a common thing to have money pawned; and he produced a drawer containing a £10 Bank of Ireland note, pawned six months ago for 10s.; a 30s. Bank of Ireland note pawned for 1s.; a £1 Provincial Bank note, pawned for 6s.; and a guinea in gold of the reign of George III., pawned for 15s. two months ago."-p. 313, Second Edition.

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#### POTATO TRUCK SYSTEM OF IRELAND,

THE CAUSE OF HER PERIODICAL FAMINES.

It has been proved, by incontrovertible evidence submitted to Parliament, that few things can be more demoralizing, or detrimental to the labourer, or more injurious to the employer, than "the truck system," or payment for labour in kind, in place of money: and the most stringent laws have been enacted to put the practice down in England. In fact, public voice has condemned it, and it no longer exists. Yet, that very system which at any time was but partially acted upon in England, is in use in Ireland to an extent which affects directly at least four millions of its inhabitants, and indirectly, perhaps the entire.

It is a fact which cannot be contradicted, that the greater portion of the agricultural labourers of Ireland, except in parts of the north, are paid for their labour by the potato, or by land to raise it. The operation between them and the farmer is simply thus:

The farmer engages his labourers from year to year, giving them land to produce their potato crop, and seed when necessary, charging, in almost every instance, a rent much beyond his own; and if a cottage be included, frequently in a similar ratio. Against this, he credits the labourer's work, keeping strict account of days and half-days, as the weather permits labour; and once a year—perhaps in some few instances, twice—the account is settled, and the balance, either way, struck. Thus, "the truck system," in its worst form, exists in Ireland, and has so existed for ages.

In England, it gave to the labourer all kinds of food suited to his station, and clothing if required. In Ireland it gives but the potato! In England, settlements were given weekly, or monthly at farthest. In Ireland, once a year! In England, it was but a partial evil, yet has been abolished by general desire. In Ireland, it is an almost universal one, but still continues!

It cannot be wondered, then, that the Irish labourer is not that active and energetic workman at home that he is abroad; nor that he is indolent, not only in appearance, but effect, when it is recollected, he suffers continuously from "the truck

system," (in its worst shape,) which has been put down with indignation by the voice of England, has been proved before the House of Commons, and admitted by the employers themselves, to be "demoralizing" to the English labourer, who received a variety of food, and twelve settlements in the year;—when he, the Irish labourer, receives but the miserable potato, and one settlement in twelve months.

Now, if gold be the legal tender to the English labourer, upon what principle is the Irishman permitted to be paid by the potato? He is not less the object of protection by the law, nor is he by the pure spirit of the constitution. Yet, in this instance, the same measure of right is not only withheld from him, but by being so, he is placed in that position which debars him from effort in those cases of need which at times fall upon all classes, and which all have a right to bear up against and overcome as best they can; but which he cannot, because the system holds him bound by its chains, almost at the lowest depth of human endurance; and when the slightest additional evil comes, he is irretrievably overwhelmed, and, as now proved, dies from destitution. He has neither innate power for further endurance, nor means of any kind to make effort against the further evil; and

while he thus patiently suffers, he is believed to be reckless and indolent.

By the custom described, the potato has become the labour coin of the agricultural community. is, in fact, as much the currency which pays for that description of labour in Ireland, as gold is in England. The labourer receives it as payment for that labour which produces grain and other crops from the land; and these being sold for money, pay the landlord's rent. It is, therefore, the bona fide representative of gold, unjustly permitted to usurp its place; and each blight which affects it, reduces the labour currency in the exact ratio of the extent of that blight, whatever it may be. Hence the periodical scarcities and famines of Ireland: because the labourer not being paid in money, has nothing to fall back upon when the potato fails. The representative of his money, and his only food, have been made one and the same, and the failure in one makes him bankrupt in all. It is not solely because the potato food fails, but because the potato coin fails too.

If the labourer's food in England, fail or become scarce, he may be forced to purchase a higher grade of food, and be therefore pinched and reduced in the quantity, but still he can *live*, for his wages are paid in money; but if the labourer's food of Ireland

fail, or become scarce, he dies, or is half famished; because the barbarous custom of making the potato the labour coin of the country, deprives him of both food and money together.

It cannot be necessary to enlarge upon so selfevident a fact as the evil of the "truck system," even in its lightest form; but when it has been permitted to extend itself until it affects the lives of at least four millions of the community, it becomes a question of the deepest interest to all. But to those who know, and have seen the fearful fruits of the system year after year, the sunshine of one giving hope to the poor sufferers sufficient to bear them up against the blights and miseries of the other, until at "one fell swoop" their hopes and lives have fallen, sacrificed together—the interest becomes a duty, the wish a command, that all who know the evil, shall disseminate its sin, and seek to obliterate it for ever. For who will say it is not a sin that we permit the continuation of a custom which entails death on hundreds, with their sins unthought of:-the father thinking of his children, not of himself or the judgment before him-the children, untaught and unable to thinkone and all dying, without thought, by the most fearful death on record—starvation! Who will feel justified in not seeking, by every means, to end the cause of such a fearful calamity?

Had the peasant labourer been paid in money, such scenes as now occur, making humanity shudder and cry shame upon itself, could not have taken place. The blight of the potato would not have blighted the coin of the realm, which still would be in circulation as the safeguard of the poor; and although the Irishman would have been reduced in his food, as the poor English labourer is now, he would receive his weekly stipend, and not starve.

Reflection will prove, that so long as the practice described be permitted to continue, so long will the agricultural labouring class of Ireland, be subjected to the same periodical ordeals. They, who cannot alter the system, will still be the sacrifice. The truck master may struggle on and live;—still no more than "struggle," for the system is deeply injurious to him; but the truck slave will die. He who is innocent, is made to undergo the punishment of death, for the crime which has been committed by others; while the whole community, the nation itself, suffers in purse and heart by a practice for which no justification can be offered.

The lowest sum which can be assumed, from the Government and other authorities, as the money value of the potato lost the last year in Ireland, is £15,000,000.; and there cannot be a question, that at least £13,000,000. of that amount would have represented money to the labourer of the

land, and those dependent upon him. This being the case, grain, or other farm produce, would have been the result of that labour, at least to a similar amount, after leaving a sufficiency for the maintenance, &c., of the farmer, and which £13,000,000. is about the rental of Ireland. In other words, the payment of £13,000,000. worth of potatoes, as money, to the labourers of Ireland, would have enabled the farmers to live, and support their families as usual; and by disposing of their surplus grain, &c. for cash, they could have paid the landlord's rent. But inasmuch as £13,000,000. of the labour coin of the country became extinct, a similar amount was deficient in the current coin; because the labour coin, not being the current coin which could not become extinct, a bona fide loss took place, to the amount which the labour coin represented, so soon as it failed. Whereas, had the labour coin and the current coin been the same as gold, as it is in England, it would have been still in existence, and afloat to meet, or at least tend to lessen the calamity caused by the loss of so much food; therefore, that amount became deficient to the landlord; for, the overplus grain, &c., which would have produced money to be transferred to him, was held back to supply the deficiency of food to the farmer's family,

&c., and to pay for the future labour of his land, or was hoarded, in dread of future want.

Again, the food of the labourer, and the labour coin, being permitted to be the same, the loss becomes, perhaps, double by its failure; for food must be purchased by money to supply the place of that lost, so much gold being taken from the coffers of the banks to make the purchases; while the rents, which should have reached the banks through the landlords, are left, perhaps almost entirely, unpaid; therefore a deficiency to that extent also arises in the usual money currency of the country, and the cost of food must rise in proportion to this double drain. Thus, not alone all Ireland suffers; but the evil falls most unjustly on the poor of England, who are made to pay, perhaps, double for their food; but it cannot be otherwise; for a custom such as this based on a positive wrong committed upon above four millions of the inhabitants of the general country, cannot but affect and damage the remainder deeply.

In a financial point of view alone, this question is one of deep interest to the country; and when the labours of the greatest statesmen of the day have been so anxiously given to check the undue use of money representatives, unless based on imperishable security, it may well be hoped that the potato, which has been blighted, even amidst the bloom of all things else in summer, shall no longer be permitted to be the "labour coin" of Ireland. Property the most tangible, even the rarest jewels, cannot be legally tendered, in England, as a payment to the humblest in the land, for his labour or a debt-nothing, in fact, but that which is deemed not only "the money of the world," but is in itself imperishable-gold. But the poor Irish labourer has been left the exception to the rule, and the most perishable commodity known is made the representative, to him, of the most imperishable; directly reversing, in Ireland, the established principle of monetary check, and thereby, not only producing the heart-rending scenes of misery which she occasionally exhibits, but, in truth, changing by its effects, the whole monetary system of the country: for it cannot be doubted, that whatever causes an outdraught of gold, beyond the usual trading exports, deranges the pecuniary circulation at large. It is plain, that precisely in the ratio of the extinction of a low grade of food improperly made to represent money, will be the derangement of the circulating medium; for that food must be replaced either by the use of food of a higher grade, purchased at a higher price, or by substituting food bought of another country.

For example:—the loss of the potato in Ireland obliges the supply of a higher description of food, grain, &c.: this, therefore, withholds from England that which she has hitherto received, and in addition, she is obliged to send large quantities of her own grain, &c. to feed the starving. She must, therefore, in order to meet the general deficiency, import food largely, and cannot increase her trade at once, so as to balance this comparatively sudden demand. Gold, of necessity, becomes the medium of payment, and in proportion as it leaves the country, so must all the operations of trade and enterprise be lessened and cramped: And, that every recurrence of the blight of the potato, so long as it is permitted to be the "labour coin" of the country, will produce the same effect, there cannot be a question.

In England the labour currency of the country is bullion, as there is no note circulated under £5. and there is always as much of actual gold and silver afloat from day to day, week to week, and year to year, as pays every labouring man his wages. The general amount is never withdrawn from that use. In Ireland, it is a fact, that money, in almost any shape does not circulate amongst many of its agricultural labourers; and taking the country at large, it may be fairly

assumed that there is no general circulating agricultural labour medium, that is, no money provided from the banks, from week to week, to pay the labourer. Hence, one cause of the ever apparent poverty with which Ireland is taunted. Money is, in truth, not to be found amongst the lower class in almost any part of the country; and its value is so little known or understood in consequence of its total disuse, that it is no uncommon thing for a peasant who becomes possessed of a bank note to pledge it at a pawnbroker's for so many shillings as he may want, and pay interest on the loan. On this point I refer to the extract annexed, from the work of Thomas Campbell Foster, Esq., so deservedly well known as the "Times Commissioner;" and in doing so I should not render him justice if I did not, as an Irishman, knowing my country's woes, and wants, and failings, say that he has written more truths respecting Ireland than all who have published on the subject: although I cannot submit to the entire, nor admit, if he even assume it, that the peasant is dishonest, or indolent, from DESIRE. He is indolent from the cause herein stated, namely, he is not paid, like all other labourers, by money for his labour.

But the evil of this system does not end here.

To it may be ascribed the want of successful.

culture, &c. by many of the small farmers of Ireland, not to the presumed ills of the small farmers themselves, of which Lord John Russell so judiciously proves the real value, by facts which cannot be gainsaid, namely, the comfort and independence of the northern farmer; who rarely, if at all, practises the potato truck system. In the other parts of Ireland it tends mainly to produce the evil of farms being taken by those who have not sufficient capital to cultivate them. If the petty farmer knew that, on taking a farm, he should pay his labourers in cash weekly, he neither would, nor could, attempt the culture as he now does. The man who should be a labourer in place of the holder of land, inasmuch as he has not enough capital to cultivate it, -having, perhaps, some few pounds to begin with - seeks unceasingly for a farm; and once in possession becames a sure mark to the parish usurer, who lends him seed, and potatoes for his labourers, till the crops come round. How to be paid back? By two or three times the measure Thus he begins his farming by paying, perhaps, 200 per cent. for his loan, saying to himself, "Once I get over the first year I'll have plenty of seed, and everything for the next," because he knows he has not to pay his labourers. But his first year's drain is rarely if ever overcome. And how can it?—for the labourers work upon truck, yielding him perhaps but half the value they otherwise would; while his usurer gets a treble payment. And when rent day comes, perhaps all the grain and stock he has is sacrificed, because, the rent being paid, he knows he has the usurer's assistance again, and his labourers' time for the year to come. Thus he proceeds to ruin. The obligation, alone, of paying money weekly to the labourer would check the evil.

But, in any way it can be viewed, the practice is inexcusable, particularly existing as it does to the extent pointed ont. All classes suffer from the original injustice of the system, and the unfortunate labourer, who suffers most in person, is also stamped through its effects, with the name of "indolent," which he but in few instances deserves, if treated like another man.

Then who suffers most after him? Strange to say it is the landlords,—yet they are in no wise blameable for the practice. It has been handed down for ages amongst the farming class, or landholders, who are in this respect perfectly beyond the reach of the landlord. Yet it is he who suffers most in purse when a calamity like the present falls upon the country, because it is evident that the general number of farmers, being small holders,

cannot pay their rents, their labour capital being lost, and with it a principal portion of the usual food of their families. If, therefore, they pay, they cannot cultivate their ground, and in many and many instances they are unaqle to do either. Here, then, the loss falls with double weight upon that class, the landlords, who have been considered to feel the calamity least; and when it is recollected that the general property of Ireland is encumbered to about two-thirds of its entire rental, it may well be conceived how unenviable is the position of those who, receiving no rent, may be forced to pay the yearly interest on the incumbrance and still uphold their rank and position in society.

And all this grievous evil may be traced back to the one cause—the potato truck system.

Had the labourer of Ireland been paid in money in place of the potato, there would have been a labour capital, in money, constantly and continuously afloat, and which nothing could withdraw from the country but a lessening of the labour; which need not be apprehended in the ordinary course of events, for money payment to labour disseminates money to all. From that source it must circulate and benefit all, creating new necessity for labour, and rising as surely as the vital fluid rises from the foot to the heart, renewing life and

vigour in its progress. Then, had money been the wages of the agricultural labourer, to him it must have come continuously, to give food to those who had the money; and, as his labour created new value, so would the payment to him create new capital amongst that class with whom he dealt for the supply of his wants, mayhap, his humble luxuries. Thus, the labourer being justly dealt with, would have rendered justice to others, and distributed for the general good all that reached his hands—for he is no hoarder—every shilling that comes to him does good to some one else, perhaps to many. Why, then, should money wages be withheld from him who confers so much benefit by its outlay, and who receives so vital a wrong by its non-payment?

But, I beg the question, England has abolished the truck system, and given to her labourer the right of the lord, to be paid in money,—her voice will be the same as to Ireland. Custom and its prejudices may seek to uphold the wrong, but the facts already on record and before the leaders of the nation, stamp the practice as a crying evil, and to permit its continuance amongst those whose habits England so strongly condemns, would be to unjustly entail the evil and the condemnation; and still make that class, though guiltless, suffer the most fearful penalties.

Protected, paid, and kindly led, the Irish peasant may now be made the willing, zealous, and contented workman. Left to the ills which have hitherto assailed him, and from which he cannot emancipate himself; he will sink still lower than he is, and become the shame of those who might have saved him. The first step is—Money Payment for his Labour.

JASPER W. ROGERS.

Nottingham-street, Dublin.

NORMAN AND SKEEN, PRINTERS, MAIDEN LANE, COVENT GARDEN.

#### AN APPEAL

FOR THE

## PEASANTRY OF IRELAND,

AND

OBJECTS OF THE

#### IRISH AMELIORATION SOCIETY,

BY JASPER W. ROGERS, C.E.

SECOND EDITION,
WITH HEADS OF THE AMENDED ACT

LONDON: EFFINGHAM WILSON, 11, ROYAL EXCHANGE.

1847.

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LONDON

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EFFINGHAM WILSON, PRINTER, 11, ROYAL EXCHANGE.

#### PROPOSITION.

AND READS OF INTENDED

#### ACT OF PARLIAMENT,

FOR

#### THE IRISH AMELIORATION SOCIETY,

ESTABLISHED FOR

EMPLOYING THE SURPLUS LABOUR OF THE COUNTRY,

IN THE PREPARATION OF

#### PEAT-FUEL AND PEAT-CHARCOAL,

For the Smelting and Working of Iron and all Metals, For Steam and other general purposes, For Fertilization of the Soil, and For Household use.

AND, YINALLY,

## BY REMOVING THE PEAT FROM THE SURFACE, TO EFFECT THE FULL RECLAMATION OF THE LAND FOR AGRICULTURAL PURPOSES.

#### THE PROFITS,

AFTER PAYMENT TO THE PROPRIETARY, ARE TO BE EXPENDED

#### IN AMELIORATING THE CONDITION OF THE PEOPLE

BY ESTABLISHING THROUGHOUT THE COUNTRY

### PLACES FOR IMPARTING USEFUL AND ENTERTAINING INFORMATION:

FOR LENDING SMALL SUMS TO THE INDUSTRIOUS POOR UNDER THE PROVISIONS OF THE "LOAN-FUND ACT;" AND ESTABLISHING DISPENSARIES WITH THE RETURNS TO ARISE FROM THE LOANS.

### THE BILL EMPOWERS THE TAKING AND PURCHASE OF BOG-LAND BY JURY VALUATION;

LIMITS ALL RESPONSIBILITY TO THE AMOUNT SUBSCRIBED FOR;
AND PROVIDES FOR A RETURN TO THE SHAREHOLDERS OF
SIX PER CENT, UPON THE CAPITAL INVESTED; TWO-THIRDS
OF ALL REMAINING PROFITS TO GO TO THE AMELIORATION
FUND—THE REMAINDER TO THE PROPRIETARY.

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## THE REPORT

MADE BY DESIRE OF

THE IRISH RELIEF COMMISSIONERS,

HY,

JASPER W. ROGERS, C.E.,

PUBLISHED IN

"A LETTER TO THE LANDLORDS

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RATE-PAYERS OF IRELAND."

#### COLUMN PRESS

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#### OPINIONS OF THE PRESS.

- "The object proposed to be effected by the author of this pamphlet is one of the highest importance. Any plan for the immediate, permanent, and profitable employment of the Irishman in Ireland, and for the development of the resources of his country, (of which so much has been said, and so little done,) must receive the most anxious attention at the present moment . . . . Mr. Rogers proposes to establish a company for the manufacture of peat-charcoal and manure from the bogs of Ireland. He shows that very considerable profits might be expected from the undertaking, and that at the same time 3,000,000 acres might be added to the arable surface of the country. The facts he adduces as to the value of peat-charcoal in the manufacture of iron are very interesting and valuable. The chief difficulty in producing fine malleable iron in this country is owing to the want of a pure fuel, as the coal we are obliged to use is largely impregnated with sulphur, which mingles with the iron, and renders it brittle and harsh."—Morning Chronicle, March 2, 1847.—Review.
- "Attention has been directed to a plan proposed for the amelioration of the Irish peasantry, by Mr. Rogers, civil engineer, a gentleman who was employed by the Irish Relief Commission, and the author of a Letter to the Landlords and Ratepayers of Ireland. The basis of the system proposed by Mr. Rogers is the progressive clearing of the peat-bogs by a joint-stock company..... Mr. Rogers clearly shows that with a capital nominally a million, 10 per cent can be guaranteed to the shareholders, leaving a surplus of 150,000d. per annum, which he proposes should be applied exclusively to improvement of the condition of the peasantry. Another corollary is the locating of occupiers on the lands when cleared of the turf; and, to say the least of it, the scheme does not only appear plausible, but, in every sense of the word, quite practicable, if judiciously gone about."—Morning Herald, January 16, 1847.—City Article.
- "Now that Parliament is on the point of meeting, and it is desirable that Members should be in possession of the best practical information to which they have access on the subject of Irish distress, and the means of relief for that distress, which will, it is certain, become at once a prominent matter of investigation, we would call attention to a treatise just published in a compact and convenient form by Mr. Jasper Rogers, of Dublin. Mr. Rogers enters upon the inquiry in a spirit of disinterestedness seldom to be met with in disquisitions of this description, and the views of the writer are but the more entitled to notice inasmuch as he is more familiar with Irish affairs and the necessities of Ireland than perhaps almost any other authority that could be named."—Morning Post, January 19, 1847.—City Article.
- "Next to elecmosynary aid periodically yielded to a people, is,' says Mr. Jasper Rogers, who has just published an excellent pamphlet on the subject, 'that of terminable public works as a means of employment.' This writer contends that the carrying out of any measure which tends merely to the employment of the people, without making that employment yield value from the soil, as the produce of the land is Ireland's whole dependence, should be carefully avoided. He holds, and with reason, that every pound spent in other labour is so much loss to the country.... As little does he hold with the course ordinarily adopted in times of scarcity, that of raising public subscriptions..... He would teach his countrymen to rely exclusively upon the good gifts of Providence and their own industry; and as an easy introduction to a new and better sys'em, he would begin by at once employing the people on all the bogs throughout the country, by task work, (with the intention of fully reclaiming the land for culture,) in cutting turf for household and manufacturing purposes."—Ibid, October 23, 1846.—Leading Article.
- "A pamphlet by Mr. Jasper Rogers, of Dublin, as important to the friends of Ireland, as interesting to the philosophical economist in general..... It was well said by the Earl of Rosse, that to furnish 'reproductive labour' ought to be

In the very able and scientific pamphlet the first care of the state. . . . . before us, Mr. Rogers amplifies this principle, and shows his countrymen the boundless wealth, which even the surface of Ireland presents for the trouble of gathering. His plans are so feasible, and of such ready and profitable application, that one really wonders, they have not been in operation for centuries. . 'The most ingenious, useful, and practicable suggestion, is the conversion of the bogs into charcoal, and to employ it in the smithy and the iron smelting houses," Mr. Rogers says with scientific truth, that 'the excellence of foreign iron and its consequently greatly increased value, as compared with English, is solely owing to its mode of preparation, entirely by means of wood charcoal. . . . . Iron, whether in ore or metal, treated with coal containing sulphur, becomes a subsulphuret of iron, breaking with a slight blow, or the simple transition from cold to heat, and Iron treated with CHARCOAL becomes in some degree carbonated, the reverse. and therefore approximates to the nature of steel.' . . . . Mr. Rogers's proposition . . . . is most important to this country, which has no means at present of competing with the North of Europe, in so essential manufacture-our mines will become more valuable-our machinery more light, firm, and durable. . . . . To find reproductive labour on the largest and most efficacious scale was the great problem which the government and the Irish aristocracy had to solve; and it is completely done by the author of this pamphlet."—Morning Advertiser, Nov. 2, 1846.-Leading Article.

"Mr. Rogers, of whose pamphlet on the means for the permanent and profitable employment of the Irish peasantry, without ultimate cost to the land, or the nation, we had lately occasion to speak in favourable terms, observes that—'To our own habits, and the system of paying for labour in kind, that is by the potato, we owe the present evil; but it cannot be denied it has descended to us for ages, and custom has hidden its error.' . . . . But as agricultural labour will not employ the whole population, Mr. Rogers' suggestion, to make peat-charcoal from the surface of the bogs, both for manure and smelting ores, merits early consideration. The latter being superior to pit-coal, would become a valuable article of commerce, as well as a source of profitable industry. . . . We have before mentioned, that the superiority of Swedish over English iron arises from the charcoal fires employed in the smelting of the former—but ours is deteriorated by the coal fires. We are, therefore, obliged to import iron for cutlery, and the better kind of machinery, although there are millions of acres covered with peat. On this account we are anxious that the means of government should be engaged in creating an employment at once profitable to both labourer and master, and presenting many commercial advantages."—Ibid, London, Nov. 26, 1846.—Leading Article.

"Among the suggestions for the regeneration and permanent relief of Ireland, none appears to be more descring of public consideration than the proposal of Mr. Jasper W. Rogers, to make the surface of the bogs available to agriculture and manufactures..... The subject is interesting to us nationally, in a most important respect. Our iron ships are useless in war, splintering when struck by shots, and in danger of foundering upon receiving concussions, that would scarcely affect a merchantman.... On this subject, Mr. Rogers, who is a civil engineer, and of considerable scientific attainments, remarks—'The evil strikes against the whole trade of iron shipbuilding, and I hesitate not to say, entirely from the one cause—that of iron being solely made by sulphureous fuel.'.... What we have already stated and extracted, must convince every one .... Thus, while we should benefit ourselves in a most essential respect, we should find immediate, permanent, and profitable employment for the people of Ireland, introduce a new species of commerce, and, at the same time, be continually opening new and valuable ground for agricultural purposes."—Ibid, January 23, 1847.—Leading Article.

"Among the various suggestions for meeting the present crisis in Ireland, Mr. Jasper Rogers has put forth some which he conceives would not only improve the condition of the peasantry, but be of paramount advantage to the ironmasters, manufacturers, and agriculturists of England, and referring chiefly to the adoption of peat and peat-charcoal as a fuel and fertilizer. In a commercial point of view even the subject certainly appears to merit attention. If capital were applied to the preparation of peat, it could be used, not only for household, but likewise for manufacturing purposes, steam boilers, &c., and, converted into charcoal, would

be more dense than the fuel made from wood, fully equal in purity, and about one-fourth of the cost . . . . As a fertilizer the value of peat-charcoal is now established on the highest authority, for it is lasting in its effect and general in its action . . . . It is proposed to establish a society upon the principle laid down in the report to the late Relief Commissioners of Ireland, and it is calculated that there would be a consumption of six million tons of peat annually, which could be supplied at 4s. 9d. per ton, while the average cost of coal throughout Ireland is about 26s. per ton."—The Sun, January 13, 1847—City Article.

"We have been attracted by this pamphlet, in consequence of the valuable matter it contains respecting the use of peat-charcoal as a fertilizer. . . . On this point Mr. Rogers reasons clearly, and we refer our readers to pages 50, &c., for very interesting facts, . . . . But the main object is to point out a mode to employ, lucratively, the peasantry of Ireland, particularly at this moment, when they are in a state of starvation. . . . We certainly have never had the truck system between landlord and labourer in Ireland so clearly shown. . . . . It is in truth a most frightful subject plainly defined; and the facts are given with that power and truthfulness which prove the intimate knowledge of the author with his subject." -Mark Lane Express, Oct. 5, 1846 -Leading Article.

" A work of much interest and information has come under our notice, which we particularly recommend to the perusal of our readers, as containing matter essential to the interest of the farming class on the subject of Peat Charcoal as

a general fertilizer of extraordinary virtues and power.

We should do the author injustice if we did not say that he has exhibited facts of the utmost value to the agricultural community, and that the interesting experiments detailed respecting the culture of plants, by charcoal, opens a wide field for its beneficial use . . . . We trust that the truly admirable association for carrying the undertaking into effect, the bill and regulations for which are set forth in the publication, and appropriately designated The Irish Amelioration Society, will speedily be in operation, not alone on account of the English farmer, but that some portion of the heart-breaking misery which hangs upon unfortunate Ireland may be alleviated. In fact, there can be no doubt, that as a mercantile speculation alone it will command success."-Ibid, February 1, 1847.-Review.

"We have been attracted by this pamphlet, in consequence of the valuable matter it contains respecting the use of peat-charcoal as a fertilizer . . . . On this point Mr. Rogers reasons clearly, and we refer our readers to pages 50, &c., for very interesting facts.... But the main object is to point out a mode to employ, lucratively, the peasantry of Ireland, particularly at this moment, when they are in a state of starvation . . . . We certainly have never had the truck system between landlord and labourer in Ireland so clearly shown . . . . . It is in truth a most frightful subject plainly defined; and the facts are given with that power and truthfulness which prove the intimate knowledge of the author with his subject."—Ibid, October 5, 1846.—Leading Article.

"We direct the attention of our readers, more especially those connected with the making, or manufacture of iron, to a very able pamphlet, written by Jasper W. Rogers. C E., (published by Ridgway, Piccadilly) pointing out a mode for the permanent employment of the overplus labouring population of Ireland. It contains more interesting information as to the real state of that country, and the causes of the misery which so often assail it, than any work we have met with on the subject. It also points out the simplest and most effectual means for preventing the evil in future, by employing the people in the preparation, generally throughout the country, of different kinds of fuel, from the immense bog districts, which, it appears, occupy 3,000,000 acres, out of 20,000,000, the whole area of Ireland.

"That this fuel is of the highest value, there cannot be a question; and it is scarcely possible to conceive, that so valuable a matter should have so long been left unproductive in the country. It is clearly of the utmost consequence to general manufacturing purposes; and to the iron-masters of England, it will give what they have so long sought for—namely, a fuel, which will enable them to produce at home as good, if not better, iron than the best foreign "—The Mining Journal, Oct. 31, 1846.—Leading Article.

"It is evident from these facts, that peat can be simply and effectually dried; and, therefore, peat-charcoal can, without doubt, be made as dense and pure as wood-charcoal. The ironmaster of England has, consequently, within his reach, that which will enable him effectually to compete with foreign iron, and drive it

totally from our market.

"We must not conclude our present remarks, without offering our meed of praise to Mr. Rogers, for the talent and research he has exhibited, in his valuable publication. We are satisfied, from what it sets forth, that England will be greatly benefited by the use of Irish peat fuel; while Ireland will be helped out of her misery by the introduction of English capital. The detail for carrying the measure into effect is singularly simple, and without any risk, while the returns appear to be more than ample-in fact, the whole proposition exhibits the result of careful investigation, guided by evidently deep thought and intellect, and a thorough knowledge of the evils of Ireland, as well as her capabilities.

"We shall return to this very interesting subject, which, we are happy to find, occupies the attention of so many of our contemporaries, as well in France as England. Its merits cannot be too widely disseminated."—Mining Journal,

Dec. 5, 1846 -Leading Article.

"We have already drawn the attention of our readers to a very valuable proposition, published by Mr. Jasper Rogers, of Dublin, for converting the bog and peat-lands of Ireland into a profitable and useful fuel, as well in the form of dried peat as charcoal, which, we have shown, can be made equally distible the peat as charcoal for the purposers of contributions of the peat as the peat of the peat as the peat a eligible in any way as wood-charcoal, for the purposes of smelting and manufacturing iron. . . . . . We shall conclude our present observations, by drawing attention to the proposition for establishing the Irish Amelioration Society, and the concluding appeal for the Irish peasantry. They are questions of deep interest at the present moment . . . . . As a mercantile measure alone it commands success . . . . . . Upon the whole, we cannot but wish it that success which it richly deserves, as a measure of great and lasting good to the country, and which reflects the highest credit on the head and heart of its most able author and promoter."-Ibid, January 30, 1847.-Leading Article.

"'The people of Ircland,' says a native writer, 'may be said to be like a listless farmer, who, possessing a rich and fruitful meadow, lets it run to waste, while he purchases hay for his cattle; and this but faintly portrays the reality. It is not in one degree that they suffer from that listlessness, but in many; the ramifications of the evil extending from its first grasp upon the very poor, until it reaches,

by its touch, even the very rich.'

"Mr. Rogers, from whose valuable pamphlet the preceding passage is extracted, entertains views very similar to those we have expressed, both in reference to symbolic money and the cultivation of the bogs of Ireland; but he has brought forward a subject, hitherto unnoticed by us, and which merits every attention. This gentleman proposes to turn to account the covering of the bogs, consisting of peat, which he recommends being converted into turf charcoal. This covering removed, and applied to manufacturing and agricultural uses, we might proceed to the substratum, which is always a fine marly soil, eminently fitted for cultivation. Thus the plan of Mr. Rogers is auxiliary to our own, and instead of one

source of wealth, two are exhibited.

"Turf charcoal may be denominated the 'natural fuel' of Ireland. It abounds, and for smiths' use it is less costly and more valuable than coal, because it is free from sulphur, the action of whose vapour deprives iron of some portion of its malleability, and subjects it to crack in forging, and to break from even a slight concussion. The superiority of Swedish over English iron is attributed to the employment of turf or wood charcoal. According to Mr. Rogers, the cost of turf, on the bog side, is 3s. 9d. per ton, and four tons of it are required to make one ton of charcoal. We must refer to his pamphlet for his various estimates, which very clearly show that a large number of persons might be constantly and reproductively employed in preparing peat fuel for household uses, as a substitute of coal and charcoal for iron works, and as a fertilizer of the soil. These labours, of themselves lucrative, would of course facilitate the reclamation of the bogs, and prepare them for systematic culture."-Douglas Jezzold's Newspaper, Oct. 1846.—Leading Article.

"TURF CHARCOAL AS A MANURE.—EMPLOYMENT OF THE IRISH LABOURER.-And the value of well prepared turf-charcoal is not confined to agriculture. Mr. Rogers, in a work just published, which we commend to the perusal of the friends of Ireland, has successfully proved its value for the use of the iron manufacturer. . . . . For either, therefore, the agriculture or the iron manufactures of the United Kingdom, the preparation of charcoal from turf seems to offer to the peasantry of Ireland a large supply of remunerative labour: there is happily too, a very small outlay of capital needed to test the value of the preparation of this charcoal."—Bell's Weekly Messenger, Oct. 12, 1846.—Review.

"While we should discourage empty-pated, visionary theorists—of whom there are not a few making their appearance at present—who bore us with their crude undigested panaceas for national sufferings—we ought to welcome with gratitude, the advice of an individual who like the author of the pamphlet before us, has devoted much of his valuable time, labour, and sagacity to the discovery of means for the improvement of the condition of his distressed fellow-countrymen. If the intrinsic merits of Mr. Rogers' brochure had not previously arrested our attention, the fact that its contents have been canvassed by the Mornino Post, Doullas Jerroll's Newstaper, and other influential journals, could not have escaped our notice. We are glad that this work has excited so much discussion on the other side of the channel. . . . . There is a vast quantity of information in this pamphlet, which should be consulted by the statesman and philanthropist. The extracts we have given set forth briefly the main points of Mr. Rogers' plan. The details of it must be sought for in the work itself, which is well worthy of being studied at this juncture."— World, Oct. 31, 1846.—Review.

"We have been favoured with a pamphlet by Jasper W. Rogers, Esq., C.E., which we recommend to the careful perusal of every one interested in the prosterity and safety of the country, by useful employment for the people, and profitable application of their labour. Mr. Rogers deserves well of the country, whose shame it will be, if he does not meet that encouragement and support to which his great talent and untiring zeal so fully entitle him."—Farmers' Gazette, Oct. 17, 1846.—Review.

"In a pamphlet which has just reached us, and to which we hasten to direct the notice of our readers, Mr. Jasper W. Rogers has proposed such a scheme. His proposition is to form an 'Irish Amelioration Society,' which shall employ its funds in the manufacture of peat-fuel and peat-charcoal, the surplus profits from which (and they are confidently estimated at a very high rate) shall be devoted to the establishment throughout Ireland of places for imparting useful and entertaining general information.

"It is a fact also that charcoal-dust is of great value as a manure . . . . . We recommend this pamphlet as worthy the attention of all friends of Ireland . . . . . . . . . . . . . . . . . . The pamphlet contains much interesting information on bog cultivation, peat-charcoal as manure, &c."—Gardeners' Chronicle, February 6, 1847.—Lead-

ing Article.

"A few months since, Mr. Jasper Rogers, C.E., drew the attention of the public to the importance of turf or peat-charcoal as a manure, and as affording abundance of remunerative employment to the unemployed poor of Ireland. After this publication, the Royal Agricultural Society of England offered a premium of twenty sovereigns, for the best essay on peat-charcoal as a manure—and within the last month, Mr. Rogers has published another work on the same important subject, and especially on the value of turf-charcoal to iron-masters, which we recommend to the early notice of the Irish landowners and farmers.—Farmers' Magazine, London, Nov. 1, 1846.—Review.

"Mr. Rogers has rendered invaluable service.... by showing how permanent and reproductive employment exists for the Irish peasantry, simply in the reclamation of bog-lands, of which Ireland has millions of acres; in cutting turf for fuel, and in its preparation also, in the shape of turf-charcoal, equal for all iron manufacturing purposes to wood-charcoal; and finally, the extraordinary fertilizing properties of peat-coke, when pulverized and applied to the land, in stimulating and increasing vegetation."—North London Miscellany, Oct. 1846.—Review.

"Compressed Peat Charcoal.—Mr. Jasper W. Rogers proposes to cut up the peaty superstratum of the Irish bog-land into portionns, subject these to hydraulic or other pressure, and then convert them into charcoal; thus affording

employment to the multitudes, preparing the land for useful purposes, and affording the means of smelting British iron into material equivalent to that of Sweden. Turf, too, at 5s. a ton, will produce as much steam as Scotch coal at 10s. a ton."—

The Builder.

"Overcoming an excusable reluctance to encounter new trials of patience, we are most agreeably surprised to find a feasible project for ameliorating the condition of all classes of Irishmen, modestly detailed by a man of practical science, perfectly conversant with all the branches of his subject. The talent and research displayed by Mr. Rogers in his former publication, are here extended and amplified; his inferences from the general statement of facts, which before were convincing, are now demonstrated with precision and energy; and the conclusion is irresistibly forced upon the mind, that it is not only possible to elevate the unhappy peasantry of the sister kingdom in the scale of civilization; and with ease, unattended by risk of pecuniary sacrifice, to render Ireland a profitable member of the empire, but that it will be nothing short of infatuation any longer to neglect scizing the advantages which nature herself offers with a liberal hand.

"It is clearly proved in this pamphlet, from the unquestionable date of existing facts readily verified, that everything necessary may be accomplished by a society with a capital small in comparison with the magnitude of the enterprise and the national advantages resulting from the work. We confidently recommend the subject for consideration, as offering commercial and industrial advantages extremely desirable to the patriot and inestimable to the philanthropist."—Mons

Sacer.

"We strongly recommend this little volume to our readers, as opening up a very clear and certain way to the extinction of the evils of Irelahd. It points out the natural wealth of Ireland as a source of profit to English capitalists; and especially its peat bogs, as one of the most certain sources of profitable speculation in the United Kingdom. The value of this enormous storehouse of peat, which Ireland is, is made obvlous by the plainest calculations; it is, moreover, shown that when this peat is removed, the ground is ready to produce the richest crops; and, lastly, that the Irish people, if employed for money wages, will work as hard as anybody can desire. Mr. Rogers shows that the poor peasantry have been paid, not in money, but by a patch of potato-ground, at a high nominal rent: and that thus the truck-system has been in constant operation throughout Ireland in its very worst shape. From personal knowledge of these facts, we can and do most earnestly recommend Mr. Rogers's work to general attention."— Howitt's Journal.

"Mr. Rogers in the pamphlet which we name to our readers, has collected scientific and economic facts regarding the natural resources of Ireland, and the ill-management of the Irish, national and personal, of great importance; and would render them effectual to his great purpose. He is not more the censor, however, than he is the apologist for his countrymen..... He but seeks their amendment for the future..... He developes a scheme readily compatible with the present undertakings of government, which would do much to improve the value of the soil.... Mr. Rogers has the merit of presenting a work, which is eligible on both a public and private account and which secures immediately the most general employment of the peasantry.... The talented writer, also, proposes to present for the 'employment of the peasantry to cultivate the land by spade labour.'"—Pleadings for the Poor, London, Oct. 24, 1846.—Review.

"Mr. Rogers' humane thoughtfulness has gone beyond the bounds to which we have yet advanced, and has wrought out a scheme for the relief of a more (and always a) necessitous class. . . . . Mr. R. has prepared full, and it would seem,

easily practicable details for the application of the scheme.

"Moreover, Mr. R, has treated the subject of the principal unimproved natural resources of his country scientifically; urging a new course to be taken by government, and to be aided by the body of the people, for the giving the benefit to unoccupied industry, and a benefit to national society throughout all its ranks.

Now, we desire nothing more than that these meritorious propositions, which we have distinguished, should be supported by the state, and that God may bless the use of them."—Ibid, Oct. 31, 1816.—Review.

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## EMPLOYMENT OF THE IRISH PEASANTRY.

How to ameliorate the condition of the peasantry of Ireland has long been a question of the deepest interest. Hitherto every effort has failed to place them in that position, which, as a portion of the "labour medium" of a great country, they are entitled to hold; and it is deemed a paradox that the sister of England should periodically sink almost to destitution; that she, who should be one and the same—whose life-stream flows almost in equal veins, and which has been shed equally all over the world—who is, and ought to be, in very truth, England's Sister, occasionally starves.

Where lies the fault? Is it solely with England? No: it is chiefly with Ireland herself; because she has not used as she ought, those gifts which nature has given for her advancement and good. She possesses all the attributes of commercial greatness which England enjoys: but the latter uses them for their purposes, brings them forth to perform the ends intended by their Creator; while the former forgets them, and forgets her own advancement.

Ireland is rich in almost all productions of the earth. She has lead, highly impregnated with silver;

iron, pure in quality; copper, rich and productive; and marble in abundance, of bright and varied hue. Slate spreads itself in various districts: coal is within reach of capital generally throughout the island; in short, all that England justly boasts of, Ireland possesses; and even gold sparkles in sight of Dublin. these lie within reach of scientific effort, if but sufficient capital and proper enterprise be applied to produce them; and they may be brought to equal profit, the same means being applied which England applies in like circumstances. But the want of confidence which she feels towards Ireland, and the fears which have existed as to the safety of property embarked there have prevented such outlay, by England, on the mines of Ireland as might have been made profitable; and therefore they are but partially made available by a comparatively small amount of native capital.

Still, although such riches are embedded in the soil, needing enterprise to draw them forth, there lies exposed and open on the very surface, that which, alone, would not only give wealth to Ireland, but yield to England advantages which she cannot otherwise obtain. One would impart to the other its individual good, to make both the more happy and bound together by ties of mutual obligation. Rivalry could not exist, because the produce of Ireland, in this instance, would add to, not take from, the produce of England. Ireland's soil would enrich that of England; would advantage, infinitely, her general manufactures, making her greater even than she is in her mechanism, and no longer dependent on other countries for that

description of iron, which, by the mighty power of her ingenuity, the wonder-working capability of her people, she converts into articles, varying in their worth from 500 to 50,000 times their original value. This she cannot now do with her own iron; but aided by the fuel of Ireland she can; and thus at once become independent of all foreign countries for her future supply.

The bog-land of Ireland is capable of being converted into a singularly advantageous fuel for general and manufacturing purposes, called peat or turf; which also possesses great powers of fertilization, when properly prepared and applied, for the purposes of agriculture. This bog extends to about 3,000,000 acres, while the whole of Ireland is but 20,000,000; and it is very generally spread over the entire country, varying from four to forty feet deep; the substratum generally being rich marly soil, possessing, when cleared from the peat, all the advantages desirable for profitable cultivation, without the natural inclination, when attempted to be otherwise reclaimed, of relapsing into unproductiveness.† Thus the land will be made permanently valuable, while in doing so, a natural production of the soil will yield large profit by its sale. Its quantity is almost inexhaustible; and the value, commercially, will be seen by the statement, page 25, to be very considerable.

To raise this most valuable commodity from the surface of the land, and convert it into a fuel and fertilizer for the purposes stated, is the leading object

<sup>•</sup> Balance-springs of watches—£1 worth of Swedish iron converted into this article is worth £50,000.

<sup>+</sup> See Note on reclamation of bog-land.

of "The Irish Amelioration Society," so far as a commercial undertaking; which will yield considerable profit. Its next, perhaps it should be said, its first, is the employment of the overplus labouring poor; so as to give them certain food and shelter, and rescue them from the chance even, of a similar calamity to the present fearful famine.

Its final hope is to improve and ameliorate their condition, giving to themselves the culture of a portion of the lands they reclaim; and thus to make them the happy hands of that great body which, it should be recollected, must always owe its greatness to the labour of the poor in peace, as well as to their blood in war.

That such objects will command the support of the people of England, those who advocate this measure doubt not. But Ireland's evils have been want of enterprise and steadiness, and in seeking aid now, from those who have advanced themselves by the exhibition of these virtues, she will ask it only as a trader—for mutual good; and will give to England value which she cannot otherwise obtain, taking from her in return capital for future enterprise, the profits of which will flow back again, to create more and more for both, and bind them the more firmly together as sisters in deed, not name.

The plan of operation, and the profits to arise from the preparation of peat, will be seen by the Statement and Tables annexed, which have been prepared and calculated for the use of Government; and although the outlay is at the maximum, and the income the

minimum, a revenue of £236,700 appears to be certain, upon the estimate of one year's work, when the whole capital shall have been called into operation: and those calculations assume that all the peat shall be supplied by the people of Ireland from their own bogs, or those they may have the right of using, which will be at a higher charge than if the Society possessed its separate bog-land, as the proposed act empowers; the revenue will, therefore, in the latter case, be so increased as to allow the Society to lessen its charge for the peat. But to the shareholders, as regards their dividend, this is a matter of no consideration, as the Tables show that the returns must infinitely exceed that sum; still, as the accomplishers of a great good, it must be highly interesting to feel that there can be no question a considerable residue of profits will go to "the Surplus Fund" of the Society; and the use of that fund is intended to be thus

#### SURPLUS OR AMELIORATION FUND.

THE first step towards the civilization of a people, must be to make them masters of their own food, and what nature calls upon them to supply to others. Give them that by regular labour; and let them feel that with the extent of their industry will come increased enjoyment. Thus, food being certain, their minds will be open to improvement, but never

until then. We cannot hope for the advancement or cultivation of those who feel doubtful as to a sufficient supply of that which is to sustain animal life. The mind will, by nature directed, turn continuously to the thought of how food is to be supplied, not alone to the body itself, but to its offspring; and the yearnings of the heart will drive all other thought away. Wholesome and sufficient food, then, must be first secured to those we would seek to teach, or our lessons will be lost.

This grand object being accomplished by the means proposed, which will give to all the power of earning according to the extent of their exertion, the next, is to offer them the means of advancing themselves in civilization; and to give that opportunity, which is the proud birthright of Great Britain, for labour, enterprise, and talent, to raise itself to eminence; not alone the eminence of rank and station, but the eminence of peaceful virtue, acknowledged and felt by all.

The leading operations of the Society, on this score, shall be to erect a building at each station, where the preparation of peat fuel is to be carried into effect; and subsequently elsewhere throughout the country. These buildings shall be sufficiently spacious for the extent of the district, and provided with proper and convenient seats, light, and heat. Here the Society will invite the people to attend, for any time they please, during two or three hours, for which period it shall be open every evening, except Sunday; and a competent person shall read to them useful and instruc-

tive works for their information and entertainment; adding plain popular descriptions of established improvements in agriculture generally; but particularly upon the subject of rearing pigs, poultry, rabbits, bees, and all such minor occupations as can be carried on with profit and advantage by the cottier.

The Irish peasant will be thus instructed, entertertained, and kept from evil, by imparting to him useful knowledge, which, although it may be doubted, he will generally seek and long for, when he feels his bodily wants, and those of his family secure. And to the class for which this great boon is intended, it will yield a double good, because the mode of instruction and amusement proposed will be consonant with their immemorial habits. They now, whenever they can do so, assemble together in the evenings after work. to sing their songs and relate the traditions and stories of the country; and many a happy group may be seen crowded even to the door-way of a cabin, when a clever "story teller," or, as they express it, a "fine reader," can be had to impart information and amusement.

Thus, the people shall be taught and made happy through the influence of their own habits; and then there may be added lectures, with practical illustrations, to prove to the eye that which the mind may doubt; for this, in many things, will be requisite, in order to overcome Irish prejudice; the general feeling of the peasant being to disbelieve what is not practically demonstrated; and hence, one of the difficulties which may attend efforts for their advancement.

But the Society will go further still—they will seek to draw the evil from their evil ways, by giving them means for that enjoyment which nature has intended for all, and which is the peculiar bias of the Irish peasant. It may be smiled at by some, but still, they will aid the natural love of the Irish for music, by having them taught occasionally the rudiments and rules of harmony, and thus place within the reach of their own cottage a means of enjoyment which those who know their habits and capabilities will at once understand the value of; and which the people will sincerely appreciate.

The cultivation of music amongst a people is but aiding them in that which has been ordained for their enjoyment. Nature, in its purity, is filled with sweet sounds—innocence gives them forth unconsciously—they come in happy joyousness from the pure-minded maiden, even as she toils;—they support the wearied soldier in his march—the labourer at his work:—because they are Nature's sounds of peace—soothing strains that issue alone from Good. Melody lives not with settled vice.—Music never accompanied a deed of crime.

Then, according as the reclaimed land shall become fit for cultivation, the Society will hope to have it occupied by those who aided in its reclamation. As patch after patch shall be made ready for culture, they expect to see the happy homestead of the humble peasant-farmer, in the place of the now sterile bog; and care shall be taken that a proportionate quantity of each allotment, or letting, shall be cultivated in

grain, and such other crops as will be most beneficial; so as to wean the peasantry from total dependence on the potato.

The tenant's interest in his holding, also, shall be such that it will stimulate him to exertion; for he shall feel that every improvement he makes will contribute to his own advancement; and feeling this, it will be contrary to nature and to the thousand facts of experience in other countries, if he do not become the happy and independent tiller of the soil, which will yield him independence; in place of being the miserable labourer, who labours now to receive that which may vanish from him in uselessness, and leave him to starvation. But care shall be taken to guard against that evil which has tended so much to Ireland's poverty, the subdivision of holdings.

It shall not be left in the power of the father of a family to parcel his land amongst them; nor, indeed, will there be a necessity; for as new generations rise, so will the bog-land be made fit for cultivation, in proportion to the demand of that class at least, which shall be engaged in its reclamation; but, the Society hope, in a much greater ratio.

Thus, unhappy Ireland may, ere long, exhibit thousands of as independent and happy peasantry as those of which Germany proudly and properly boasts, and which may well be taken as a good-example.

Such are the objects of the Society, and when the following statement and tables have been read, they will show that it may be hoped, nay, almost counted on, that above £100,000 per annum, will arise

upon the "Surplus Fund;" and if this amount be devoted to the advancement and general advantage of the peasantry of Ireland, her regeneration will, with Heaven's permission, be sure, and her ultimate peace and happiness secured—in the only way that it should—by means of her own toil and industry, properly aided and directed.

#### STATEMENT.

#### COMMERCIAL ADVANTAGES

OF

#### THE IRISH AMELIORATION SOCIETY.

The difficulty attending the preparation of peat as a fuel, &c. by the peasant of Ireland, has hitherto arisen from the want of proper means for drying; and this has been the main cause why it has not been more extensively used. He dries it now in the open air, being therefore dependent upon circumstances not under his control for its preparation. It is frequently the case that the labour of days may be washed away, or marred, by a night of heavy rain; and his poverty, it may well be understood, prevents him from obviating the evil by artificial means.

To overcome this otherwise insurmountable difficulty, and thus aid the peasant by providing proper appliances for drying and preparing the peat, and afterwards converting it into charcoal, is the *commercial* object of the Society.

Peat, when cut into properly shaped sods, and fully dried, can be made into a most desirable fuel for the following purposes:—

For general household use.

For all manufacturing uses; such as brewing, dis-

tilling, soap-boiling, &c. &c. &c.; in fact, for all purposes where a general heat, spreading over the whole surface to be acted upon, is of advantage; this being its peculiar property.

For steam-boilers it presents singular benefits, yielding, by its equality of heat, a much greater quantum of steam, from a given surface, than coal; while a boiler fired by it will, from the absence of all sulphureous vapour, last almost double its usual time.

It has been found that the *flues* of a steam-boiler heated by properly prepared peat, are nearly equal in temperature to the surface directly acted upon; while the consumption of firing is much less. In fact, when *dry* peat can be had, at even a higher comparative price then coal, it is more economical and desirable for boiler use; the furnaces being arranged to suit the greater bulk of the turf.

These facts being proved as regards steam-boilers, it is evident that such a fuel for general manufacturing purposes is highly desirable; and for household use, particularly amongst the lower classes, its advantages are considerable. In Dublin, the poor pay during winter, for peat or turf prepared, even defectively as it is, above 35s. per ton, in preference to using coal, say at 25s.; the cause being, that it can be easily lighted, and acts with greater generality on the article to be cooked, than coal. It quickly surrounds the cooking-vessel with a general heat, while coal acts principally upon the bottom, and takes a much longer time to ignite. Hence, peat prepares the meals of the poor more quickly and econo-

mically than coal. And it may be assumed that this evil as regards coal, is the cause why almost all the lower classes of England have their dishes dressed at public ovens, in place of by their own fires. Thus peat, if properly prepared, will be seen to possess value which must command its consumption to almost any extent, so soon as its properties shall have been sufficiently understood.\*

But the conversion of peat into charcoal offers advantages still more striking. An erroneous impression exists, that carbonized peat is so friable and volatile, as to be unfitted for the purposes for which charcoal of wood is generally used; and hence the belief, that it cannot be made available for that grand object to England, the smelting and preparation of iron; but for which it is in fact eminently fitted. Peat-charcoal can be made even more dense than that from wood; its purity is fully equal; and the cost about one-fourth. Its value, therefore, for the production of iron, is almost incalculable, not alone on the score of enabling the iron-master to command the English market, to the exclusion of foreign iron; but that just in proportion to the quantity of peat and peat-charcoal used in the general preparation will be the stability of iron and the safety of the public generally; for it is impossible to know when even the best coal-made iron may have become unsound by an over-action of sulphur in its preparation. The value of peat-fuel for making iron has been

<sup>\*</sup> See Note, page 59, containing a valuable paper on Turf, written by John Classon, Esq., of Dublin.

long proved on the continent, and England has been behindhand, merely because of her abundance of coal. Had she felt the slightest want of fuel for her furnaces, she would long since have sought that which the Irish bog can give her so abundantly.

For the manufacture and forging of all description of iron-work, peat-charcoal possesses singularly desirable qualities: the iron is improved by the action of the carbon, and its strength and malleability increased; while the calorific effect of the charcoal being considerably greater than any smiths' coal, the cost is not more in reality. In fact, inferior iron, forged by peat-charcoal, is more capable of being worked into difficult forms, than superior, forged by coal; and is sounder, and more fitted for resisting concussion: a circumstance invaluable at the present time, when the want of strength and soundness in iron-work upon the railways, may cause such fearful loss of life.

For the smelting of all metals also, the advantage of peat-charcoal must be nearly equal; for upon each, the action of sulphur, from the coal, is injurious in a greater or lesser degree.\*

But there is a further use for peat-charcoal, which will not only make its demand certain and progressive, but will confer on the agricultural interests of England considerable benefit. It has been proved by unquestionable experiments, commenced some years since at Munich, that carbon, or charcoal, applied as a manure, or fertilizer, produced great advantage to

See Note on the making and manufacture of iron by peat-charcoal, page 60.

vegetation; and by a succession of trials since, it has been incontestably established that peat-charcoal is one of the most valuable general fertilizers now known—one that cannot produce injury by over use, while almost the smallest quantity will yield a certain amount of good. It is lasting in its effect, and general in its action, not being confined, like most other fertilizers, to an isolated capability. It supplies to the root in ample abundance, that carbon of which most vegetables contain from forty to fifty per cent., and to obtain which they are now left dependent almost solely on the atmosphere.

Its inestimable value, in this respect, will be seen by the notes annexed;\* and that this is fully admitted by those most competent to judge, has been proved by the fact, that "The Royal Agricultural Society of England" have granted a prize for the best Essay on the quantities, &c. of peat-charcoal to be used with different crops. It is evident, therefore, that the peat-bogs of Ireland contain a commodity of the highest value to the agriculturists of England.

Thus, the Society will possess another considerable source of profit, and be assured of a sale for even the very dust which will remain from the general preparation of the charcoal. And to the agriculturist the boon will be of the utmost value; for he will be enabled to purchase a fertilizer of the most productive kind, at a cost infinitely less than other manures.

It is intended that the plan of operation to be adopted by the Society, shall be upon the same prin-

<sup>•</sup> See Notes on peat-charcoal as a fertilizer, page 67.

eiple as that laid down in the Report upon the subject, made to the late Relief Commissioners of Ireland—namely, by "task-work," which has since been so advantageously carried into effect by the present Government.

The Society purpose establishing, in convenient and desirable positions throughout the country, stations for the final drying and preparation of peat, and its conversion into charcoal; having at each, one confidential officer, to be aided by a sufficient number of labouring assistants belonging to the locality. Here, all the necessary appliances shall be provided, and the peasantry then invited to cut turf, or peat, according to certain dimensions, either upon the bogs which they may possess the right of using under their leases, or by agreement with the owners of the bog-land. In this case, the Society will pay a given sum per measure, for all peat brought to their stations in a sufficiently dry state for carriage; and upon the peasant himself piling it in the drying-houses, which shall be so arranged that he can do so without difficulty, he shall be paid the value at once. Thus a trade of great advantage will be opened for all who possess the power of cutting turf under privilege of their holdings, or otherwise.

Next, the Society will rent or purchase bog-land for their own direct operations. On this the peasantry shall be employed, and paid for their work by measure also, the Society providing apparatus of a simple nature for cutting and preserving the peat in any weather sufficiently dry for out-door labour. Here

again, the peasant will be paid and rewarded in proportion to his labour and exertion; and according as the turf shall have been removed from the surface, the substratum shall be properly drained and prepared for permanent cultivation.

It is proposed that in place of cash, cash tickets, representing the amount due to each peasant, shall be the mode of payment. The society will arrange that they shall be payable at all banks in the district, on the signature of the superintendent, who shall be supplied with only a given amount weekly. They will thus pass as cash through the country, and do away with the necessity for an establishment of officers necessary for the custody and outlay of a large sum of money; and also save risk arising from money being kept at, or sent to, remote stations.

The sales of peat and charcoal can be effected throughout the kingdom by agents, paid and giving security in the usual manner, and yielding accounts monthly; which can be arranged in so simple a form, that the *totals* of debits and credits, duly set out, will show, at any time, the exact state of the revenue, &c.

These items, arriving in detail from each agent, being totalled monthly or quarterly, deducting general expenses of management, will make the net revenue at once apparent; while a periodical inspection of the stations and measurement of the peat in store, must effectually check the whole operation; in which there can be no temptation for fraud or peculation. The superintendent will be accountable for the quantity of peat set out in his returns, and be checked by the

quantity stated in his "cash-tickets;" also by the periodical examination, which will effectually prevent any irregularity; thus the transactions of the Society, extending over the whole of Ireland, can be as simply guided and checked, as if but in one establishment; proper inspectors and supervisors being of course provided.

As regards profits, the data laid down in the report upon the subject to Government have been adopted, although circumstances have shown that the cost of undried peat, and the outlay in its drying and preparation, is much beyond what will be in reality paid when the Society is in operation; but in order to be on the safe side, this course has been followed, and the results will appear from the following facts. It is right to observe also, that the allowance made for the quantity of peat necessary to produce a ton of charcoal, is considerably beyond that which will be required, as will be apparent from the notes on the subject annexed; therefore the profits on this score will be considerably greater than represented.

The import of coal to Ireland before the introduction of railways, has been estimated at from 2,500,000 to 3,000,000 tons per annum. The present or future average may be assumed at 4,000,000; but taking it to be only 3,000,000, and that Ireland uses but two-thirds of her own fuel in future—not to speak of the English market at all—there will arise a certain demand for 4,000,000 tons of peat; (taking it as only half the calorific value of coal;) and if there be added to this, 2,000,000 tons, to be converted into 500,000

tons of charcoal, (a low estimate, indeed, for the United Kingdom,) it may with safety be calculated that there will be a consumption of 6,000,000 tons of peat annually; the first step of an undertaking, the ultimate extent of which cannot be fairly estimated.

Assuming the cost of peat, in its partially dried state, to be 2s. 6d., per ton, which is above the reality, and that it takes even one-half more to produce one ton of properly dried peat, the cost at each station will be 3s. 9d., per ton. To this is to be added the Society's revenue, of one shilling per ton; therefore, peat fuel of the most superior quality may be supplied at 4s. 9d:, while the average cost of coal throughout Ireland cannot be estimated at less than 25s., per ton.

Calculating, then, that 6,000,000 tons of peat and charcoal be prepared and sold per annum, which is much below what may be estimated; and that really dry peat be sold at 4s. 9d. per ton, charcoal being charged £1. Is. per ton, in place of £4, (the present price, exclusive of carriage,) the estimates submitted hereafter, will show the result as regards *Income* and *Expenditure*, and the *Revenue* to be derived.

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No. 1.

Estimate—Cost of preparing Peat Fuel, the proposed Revenue Charge being added.

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## No. 2.

Estimate—Cost of preparing Charcoal, adding Revenue Charge in proportion to Peat Fuel.

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### No. 4

Estimate—Annual Income and Expenditure, arising from two hundred Stations, each preparing one hundred Tons of Peat per day.

## INCOME.

# EXPENDITURE.

Total charges of management at two hundred stations, per Estimate No. 3, viz.—£3, 16, 0, × 39	x 200	Board of Management, and Officers, &c. say	Agents 21 per Cent. on sales	Net overplus	
- 1					
0.00,000 tons of Peat, per annum, prepared at two hundred stations—vielding a revenue of 1s. per	ton, per Estimate, No. 1.	10,000 tons Charcoal, at 4s. per ton revenue. Es-	timate, No. 2 100,000		

£39,520 10,000 36,875 213,606

£300,000

Net Surplus Revenue, Two Hundred and Thirteen Thousand Six Hundred and Five Pounds per Annum.

£300,000

Thus, there will be a clear profit of £236,700 per annum arising from an apparent minimum income and maximum expenditure; while, as before stated, the calculations are made upon peat procured from the peasantry, although the Society will be entitled to purchase and work its own bog-land. It will be seen that 1s. per ton revenue to be authorized by the act of parliament, will, even assuming the whole capital of £1,000,000 to be paid up, return nearly 25 per cent. upon the amount; securing, it may be said, the certainty of at least 10 per cent. to the proprietors, and giving them the enviable privilege of being instrumental in the expenditure of perhaps £100,000 yearly, in ameliorating the condition of a people for ages in wretchedness; and raising them from that misery which has been not alone a disgrace to themselves but a blot upon the nation.

In addition to the foregoing advantages, the Society will be privileged in the exclusive use of an apparatus for the thorough drying and compression of peat, and its conversion into charcoal, which is being patented; and the patentee secures the royalty to the Society, at one penny only, upon each ton of peat which shall be manufactured and sold; while the Society will have a revenue of one shilling; and the patentee will appropriate one-half of his royalty yearly in granting premiums to the lower classes of Ireland, for superior skill in their callings, cleanliness of habit, neatness of habitations, and general propriety of conduct.

A further advantage of great consideration exists. It is estimated that the actual expense of all appara-

tus at each station, may be averaged at from £300 to £500, arising from the simplicity of the appliances which have been constructed to aid hand-labour, and thus secure to the population that employment which is essential to their advancement; therefore, even taking the maximum £500 as the expenditure at each station, the whole outlay on two hundred stations will be but £100,000. And if it be deemed right to commence with only one station, the outlay of £300 will produce a profit equivalent to that expenditure; and at once prove the advantage of the whole. But it must be plain, that whatever be the amount of capital raised, one-tenth only can be expended under the designation of "plant," while nine-tenths will be represented by an available stock, always of marketable value beyond its cost of production; and of this ninetenths, almost the whole will be expended in labourthus, to the fullest extent accomplishing the object of the Society.

But there is a final advantage, which although of great magnitude, has not been brought into account in estimating the returns to the Society. The value of the land for culture when divested of its peat. It has been shown, that the substratum of all peat-bog possesses elements essential for the most profitable cultivation; and therefore, just in proportion as the operations of the Society extend, yielding to it large returns by every yard of surface cleared, so will lasting advantages accrue, in the possession of most valuable landed property. But against this is to be placed the cost of purchase and thorough drainage,

which are items that cannot be estimated with certainty, until the position of the bog-land to be taken by the Society shall have been fully ascertained; therefore, the actual value of the Society's future possessions, in agricultural land, cannot be properly assumed, although it must be of considerable amount.\* No one can contemplate the happy results which must arise to the overplus peasantry of Ireland, by thus providing an asylum for their wretchedness, (earned by their own labour,) without feeling that the measure proposed may be made the groundwork for the regeneration and future permanent good of a people, than whom, it may perhaps be said, there exists not amongst civilized nations one more truly wretched, nor who so much need the aid and direction of those to whom Providence has granted information and independence.

The legal constitution of the Society will be seen by the heads of the proposed Act of Parliament annexed, which will provide full protection for the proprietary, without the necessity for a deed of settlement.

<sup>\*</sup> See Notes on the reclamation of bog-land-

#### HEADS

OF THE

#### PROPOSED ACT OF PARLIAMENT,

For Promoting the Profitable Employment of the Labouring Population of Ireland, by the Preparation of Peat and Peat-Charcoal, thereby reclaiming the Bog Lands for cultivation: also for improving the Social Condition of the People, by means of an Association, to be called "The Irish Amelioration Society."

PREAMBLE.—Capital to be £1,000,000, in 50,000 Shares of £20 each.

Deposit £1 per Share. Subsequent payments, £1 per Share per quarter.

BOARD OF MANAGEMENT, to consist of Directors, a Chairman, a Managing Director, and a Secretary, to conduct and control the entire mercantile affairs of the Society, rendering yearly accounts, &c. After paying the per-centage to the Proprietors, and reserving per cent. as a rest against contingent losses, (the Rest Fund not to exceed  $\pounds$  in the whole,) the Directors are to lodge two-thirds of the balance of profits to the credit of a fund to

be called *The Amelioration Fund*. Qualification of a Director, to be the holder of Shares; one-fourth to go out yearly, but be re-eligible. A Committee of the Board of Management to sit for the transaction of business in Dublin, with the Managing Director, who is to be resident there.

Board of Audit and Amelioration, to consist of a President, Vice-Presidents, Members, and a Secretary. To audit the accounts of the Society, and to direct and manage the establishment of Reading and Lecture Rooms, for the improvement of the labouring class to be employed, and others in the district, and carry into effect the remaining objects of the Society, in bettering the condition of the Irish people. Members of the Board of Audit and Amelioration to have no voice or responsibility in the direction of the mercantile affairs of the Society, and need not of necessity be Shareholders.

Members of the Board of Management to be ex-officio members of the Board of Amelioration, but not to sit on a Board of Audit.

No Shareholder to be liable for more than the amount of his shares.

All payments to be by cheque, filled up by the Accountant, signed by three Directors, at a meeting of the Board, countersigned by Secretary, and endorsed by the payee.

All money to be paid to credit of Directors.

General Meetings for election of Directors, &c., not to be less than 100 Shareholders, holding in the aggregate 1000 shares, or proxies to a similar extent. Holders of shares to have votes; holders of shares votes. Special General Meeting to be called by 20 shareholders holding 500 shares.

Ten days notice to be given of General and Special General Meetings. If a quorum be not present, to adjourn fourteen days. If a quorum not then present, the question to be adjourned to first Yearly General Meeting.

All deeds, and other documents relating to the Society, to be free of stamp duty.

Power to take, hold, and purchase Bog Lands by valuation or agreement; paying to the owners thereof the sum, whether rent or otherwise awarded, and a royalty, not exceeding per cent. on the profits of the fuel sold, and a quit rent on the land when reclaimed, not exceeding per cent. on rental.

Power to take lands necessary for making water cuts and canals for drainage.

Power to landlords to recover rents, royalties, &c., against the Society.

Liberty to charge a recenue, not exceeding One Shilling per ton above all expenses, on each ton of Peat prepared and sold, on condition that two-thirds of all surplus profits, after paying the Proprietary 6 per cent. on the paid-up capital, the cost of drainage, habitations, &c. &c., shall be lodged to the credit of the Amelioration Fund; the remainder to be divided amongst the Proprietary. The Amelioration Fund is to be applied in providing buildings at each station where the Society's operations shall be carried on, in which the people may assemble each evening to hear useful and entertaining works read for their information and improvement; also lectures on practical farming, cottage economy, &c.; to provide books, readers, lecturers, and all necessary persons and things for the pur-

pose. When all such buildings, &c. shall have been provided and in operation, the balance or surplus is to be applied in establishing loan funds at each station, under the regulations of the Loan Fund Act, and in conjunction with the Loan Fund Board of Ireland, for the purpose of rendering proper pecuniary assistance to the industrious poor: and from the returns thereon or otherwise, to establish at each station, as soon as it can be accomplished, Dispensaries and Medical Attendants, for the general benefit of the district. Amelioration District Committees to be appointed by Amelioration Board; and to be composed of Protestant, Roman Catholic, Presbyterian, and Dissenting ministers of the parish, with other leading inhabitants.

Power to the Directors of the Amelioration Board to take repayments of loans, at such periods as they may think fit; but not to charge higher rate of interest than is established by the act named.

Society to deliver yearly a Report, with all necessary details and information, respecting the profits, amount transferred to the Amelioration Fund, how applied, the balance in hand, &c., to the Lord Lieutenant of Ireland, who may require, and is to be supplied with, all such further information as he may think necessary.

## NOTE.

# VALUE OF PEAT FUEL.

It is an almost unaccountable fact, that while countries by no means so favoured as Ireland, should make such advantageous uses of their peat, and thereby advance their trade and manufactures to an extent they otherwise could not, she rests supinely, allows her natural fuel to be not only useless, but a burthen upon the surface of the soil which would yield grain in abundance; and she actually draws from the miserable resources of her impoverished people, a sum not far from two millions yearly, to pay England for coal! It may be ascertained from the Custom-house entries of Ireland, that she has imported coal within the last half century, at the cost of above seventyfive millions of money-every shilling of which she might have kept at home, giving herself, while she did so, a much cheaper fuel, and giving her people employment. But it is to be hoped a brighter day dawns upon her. Why should France and Germany outstrip her in the production and use of an admirable fuel, while the peat itself is much inferior? But above all, why should Russia?

I take the following very interesting papers on the subject, from the Petersburgh "Journal of Manufactures— Gazette of Manufactures and Mines," a Government publication, issued in 1842, which will show, that Russia already possesses an "Association" for the manufacture of her turf; and if she, with such a climate, can so well accomplish it, how little must be the comparative difficulty in Ireland!

# "RAISING OF TURF IN THE ENVIRONS OF MOSCOW."

"For several years immense layers of turf filled the marshes within the government of Moscow, and excited the attention of the proprietors, as much as that of the administration. The rapid progress that manufacturing industry has made in our day, particularly in that part of the empire, and the increased consumption of that combustible, is the cause that, as yet, we have not been able to drain any part; and it promises to become, without the slightest doubt, very productive. It suffices to know, that the only established manufactory at Moscow, annually consumes more than '200,000 sagénes coûrantes,' or nearly 70,000 cubic sagénes of wood, to judge how much these strata of turf offer to the resources, and could be made precious to the country.

"A person employed, who had before organized in Courlande the raising of some similar turf, M. Bode, who was ordered last year to examine those of the government of Moscow, reports, that the banks of turf that are found, are so immense that there is no fear of their ever being exhausted. The layers are often found of a thickness of from six to eight, sometimes even from twenty to twenty-four feet; and the turf is of so good a quality, that, according to the opinion of the person employed, whom we have already cited, one sayénc, for example, of that which has been taken from a marsh situated not far from the

village of Kouzeninsk, in the district of Bohorodsk, gives as much heat as 1\(\frac{1}{2}\) sagéne of deal wood. M. Bode calculated that four marshes situated in the neighbourhood of Moscow, and offering together a surface of nearly 1,700 dessiatines, does not hold less than 3,066,000 cubic sagénes of turf, without reckoning a marsh near the village of Kouzminsk, belonging to His Highness Prince Serge Galitzyne, a little further from the town, but which might present immense advantages, because the river Moskva would allow the turf to be forwarded, by water, as far as the centre of the capital.

"The marshes that exist in the district of Bohorodsk will not fail showing advantageous results, a great number of manufactories having already been established for some years on the banks of the Kliazma. The difficulties that arise at the commencement of all new industry, have been the cause that the labours have never been carried on, till lately, with that activity from which we may expect satisfactory results.

"The labourers that are employed, are as yet so unaccustomed, that the number of squares of turf that each man cuts in the course of a day, averages but 1,500, whilst in Germany, each labourer daily furnishes from five to six thousand. Perhaps it would be, likewise, far more advantageous to drain those marshes, before ever thinking of raising those layers of turf. In their actual state, the bottom of those marshes are frozen till towards the end of June; we therefore cannot commence raising the turf till the month of July, a time in the year that wages are invariably extremely high.

"These circumstances have forced the proprietors to sell, until the present, turf at a price comparatively speaking far too high. But the first essays are made; we henceforth will occupy ourselves by showing on one side, the mode

of raising, likewise the improvements that have offered elsewhere: on the other, by stating that already a proprietor of a large factory at Moscow, has realized a considerable profit, in using in his immense workhouses, turf in lieu of wood."

"In our supplement of last year, (page 55,) we had occasion to speak of the immense layers of turf in the marshes of Moscow, and the works of raising which lately had commenced, and promised, for the future, immense resources to this capital, where manufacturing industry has made such rapid progress.

"We never expected that those works could have appeared so favourable the first year; however, the quantities of turf drawn from the marshes of Moscow and its districts, and placed for sale in the town, by a company of shareholders formed for that purpose, amount to 5,0511 cubic sagénes, without reckoning a certain quantity of turf, arising from marshes in the environs of the village of Sriblova, and on which we can give no further information. This mass is equal to 10,000 sagénes of wood, and besides, at rather a high price. The use of it spreads every day, more and more, either in factories or private houses. as to encourage the public, the Governor-General of the Military Department had several steam-engines made, in establishments belonging to Government, in order to use the turf; the result of which, during the first six months, made at an average 16 per cent. profit on the expense of firing and warming. Some parts of Petroffsky Barracks, besides an apartment in the Chancery, are equally warmed by means of that combustible. The example thus given was followed by Mr. Rebolsin and Captain Mertry, of the Guards. The splendid and extensive manufactory of engines, belonging to Butenop and Sons, is also among the number of establishments where experiments of that kind have been made; and in the manufactory of Colonel Volkoff, considerable profits have been realized by using turf for engines of twenty-horse power. Using wood, must have been at an expense, for seven months, of 15,342 rubles ass.; whilst turf, consumed in the same space of time, at an expense only of 12,740 rubles. It is as well to remark, that the turf taken from the lands of Colonel Volkoff, was far from being of the best quality. Besides, the Association for the raising of turf have established, in the neighbourhood of the marshes, a tile-kiln, the ovens of which are heated by means of that combustible, and furnished last year as many as 512,500 bricks of the best quality.

"In the course of the year the raising of those layers of turf will not fail to unfold immense advantages, as several works of similar nature are projected, and even partly commenced, in different parts of the dominions of this empire."

Having shown what has been done abroad, I now give the opinions of a native writer upon the value of peat fuel; one, who, in a single volume, has exhibited more truths respecting Ireland's capabilities, than ever has been collected or brought forth upon the subject.

# EXTRACTS FROM SIR ROBERT KANE'S "IN-DUSTRIAL RESOURCES OF IRELAND."

"Our bogs may become, under the influence of enlightened energy, sources of industry eminently productive. It is a fuel of excellent nature. We see it, in its ordinary

use, spoiled by its mode of preparation." "Near the surface it is light-coloured, spongy, and contains the vegetable remains but little altered. Deeper, it is brown, denser, and more decomposed; and finally, at the base of the greater bogs, some of which present a depth of forty feet, the mass of turf assumes the black colour, and nearly the density of coal, to which it approximates very "The specific gravity of the light-surface turf is 400, water being 1000, and from this it increases, with the compactness of the structure, to nearly the density of coal. A cubic yard of good turf, packed close in sods, weighs about 900lbs. The densest turf, well packed, will go so far as 1100 lbs. per cubic yard; but the light turf, of which so much is burned, may not weigh more than 500lbs. For comparison I may mention, that the cubic yard of solid coal weighs nearly a ton; but the coal, in fragments, as sold and burned, weighs but 13 cwt. per cubic yard, it is therefore about twice as dense as average turf." " For all flaming fires turf is applicable; and in its application to boilers it is peculiarly useful, as there is no liability to that burning away of the metal, which may arise from local intensity of the heat of coke or coal." . . "Mr. Burstall, of Bristol, has published the results of his use of turf with a high-pressure engine. The steam was of 30 lbs. pressure, and there were consumed 74 lbs. of turf (which he describes as bad) per hour. The quantity of water evaporated from the boiler, per hour, was, in average. 360 lbs.." "nearly five times its weight of water." "The following results as to the comparative effective power of turf and coal are derived from the working of the 'Lansdowne,' one of the steamers of the Inland Navigation Company, which ply upon the Shannon with goods and passengers. They have been kindly placed in my

hands, for my present object, by Mr. C. W. Williams. Before the use of turf was introduced, there were burned in a week, which comprises forty-nine hours of work, twenty-four tons of coal, which costing, in average, at Killaloe, 15s, per ton, amount to £18, or 7s. 5d. per hour. To do the same work at present, burning nothing but turf, there are consumed, per week, three hundred and fifteen boxes of turf, which, at 7d. per box, costs £9. 12s. 7d., or 3s. 11d. per hour of work; but a shade more than half the cost with coal."

"The employment of turf, as a source of heat, in industry, is extending; already it supplies exclusively the steamboats on the Shannon, and a great number of distilleries and mills. From the numerical facts which have been given, the economy of its use may be inferred, as compared with other fuels."

"Mr. Williams, using the same sort of fuel (turf) as is employed at the corn-mill, noticed at page 55, as paying 6d. per box, but drying it well, found that, with a large working waggon-boiler, there were 3.87 lbs. of water evaporated per pound of turf, and that it cost 3s. 7d. to evaporate one hundred cubic feet of water. Now this is 5½ per horse-power per working day. When the turf was burned in the furnace, without Mr. Williams's peculiar mode of effecting perfect combustion, the cost per horse-power was 6½, coinciding with the result which I have derived from other sources."

"From all these examples it may be decidedly concluded, that in Ireland the horse-power of steam costs, per day, in fuel—

Using coals, w	hether British or native		74.
" turf, pr	operly dried		6.
turf. on	Mr. Williams's mode		51."

"The high price of fuel in Cornwall has led not only to the wonderful economy produced by the principle of expansion, but also to endeavours to replace the imported coal by the native turf of that district. Mr. Wickstead has given an account of an engine with which comparative trials of these fuels have been made. The engine, working five-horse power, consumed in twenty-four hours, three bushels and one-third of coal (310 lbs.) In the same time, and doing the same work, it burned three cubic feet of turf, which cost  $8\frac{1}{2}$ d. I think that in the volume of the turf an error has crept into Mr. Wickstead's paper, which prevents my estimating the weight of turf consumed; but the cost enables us to judge:—At 10s. per ton the coals cost 17d., and hence the turf did the same work for just half the price."

Such evidence as to the value of peat as a fuel, from the experience of an authority so highly informed on the subject, might well be deemed conclusive; but the following paper, written by a gentleman,\* whose benevolence of purpose keeps pace with his energy in all things for the advancement of Ireland, is so interesting and satisfactory, that I insert it; the more particularly, as although the publication was not made for some months after my report to Government upon the matter, I have reason to know by subsequent facts, that he had been long engaged in investigating the subject, having the humane view of supplying the poor of Ireland with a cheap fuel; and I should much regret were he deprived of one iota of the merit he so well deserves, for advocating and seeking to accomplish so admirable an object.

<sup>.</sup> John Classon, Esq., or Dublin.

"Suggestions for immediate, extensive, permanent, and remunerative employment, in Ireland; and returns for the capital within a pew months.

"Food, clothing, and fuel are the three prime necessaries of life. There is no way of obtaining these but by employing the people. Employment is of two kinds, temporary and permanent; and without undervaluing the immense advantage to the country which the laying down of judicious railways in Ireland will afford, the employment given in the construction of them, it must be admitted, will be but temporary, as, when completed, the work (at least as far as common labour is concerned) almost entirely ceases. It would appear that the time has arrived, when it is imperative that permanent plans of extensive, continuous, but, above all, remunerative employment should be devised.

"The reclamation of waste lands will effect much, the mines, and the extension of fisheries, more. But, after all, the great source of almost untouched wealth lies in the bogs of Ireland. England, Wales, and Scotland have enormous and well-developed sources of wealth and employment in their invaluable coal-mines, while Ireland has her equally valuable fuel; and thence the source of the same extended employment through the means of her neglected turf-bogs. Nature, to the coal-miner, seems to say, Not only shall your labour be by the sweat of your brow, but you shall at the same time be deprived of the glorious light of the sun, and be exposed to the noxious damp of the mine. But in Ireland, in the preparation of the valuable fuel nature has spread out almost on the surface, man, woman, and child may be healthfully employed under the clear canopy of heaven, with the fresh

breeze to brace their frames for the cheerful work. What have not science, machinery, and capital done in the developement of the resources of England through the working of her coal-mines? And what have capital, skill, machinery, or science done to bring into profitable working the turf-bogs of Ireland? Alas, with a few honourable exceptions, almost nothing! But the progress of events is about to force the advantages that have been hitherto neglected, on the attention of man. And when the proper appliances have been made to the turf-bogs of Ireland then will be seen the prodigious amount of waste property that has been allowed to remain for centuries unproductive; while the vast employment that will be thus afforded, by producing cheap and abundant fuel, and turning the morass into well-cultivated land, studded with the comfortable habitations of the producing classes, will be such a conclusive demonstration of what can be done in Ireland that we shall cease to be designated 'that country for which God has done so much and man so little.'

"But before entering into the detail of the practical working and effect of the projected undertaking, it may be stated, as the very first step to attract capital to it, that a public Act of the legislature will be requisite to enable landlords, whether they are tenants for life, or encumbered, or trustees for lunatics or minors, to make leases without limit of time. This Act, which would be equally for the interest of the landlord and his heirs, as for companies that may agree to operate on the present worthless waste, is indispensable.

"We may now consider the matter under the following heads:-

<sup>&</sup>quot; Firstly.—The magnitude of the subject, and the interest at stake.

" Secondly.—The position of Ireland, more particularly the city of Dublin, with reference to fuel.

"Thirdly.—Present state of the turf trade to Dublin, and what, under other and more favourable circumstances, might be made of it.

"First, then, It is beyond dispute, that about one-seventh of the whole surface of Ireland, or between two and three millions of acres, consists of bog-land of one kind or another; by far the largest portion of which does not now produce, nor has for ages past produced, any income, and must be considered, in its present state, as only nominal property. Can then the magnitude and importance of an undertaking such as that now in contemplation, be over estimated, when it is capable of proof that what is now worth little or nothing can not only be made to produce abundance of fuel, but be converted into valuable estates of reclaimed arable land? in doing which, hundreds of thousands of pounds would be annually expended in mere labour, bringing to the capitalist, within the year, a return of from 10 to 15 per cent., for his investments.

"Second, Ireland, in comparison with England, Scotland, and Wales, may be considered as destitute of coal; and the present and future wants of the latter countries for themselves, forbid the expectation, that sea-borne coal will, within a reasonable time, be again at moderate prices. The prodigious consumption in the manufacture of iron—the increased wants for steam, particularly on railways—the enormously increased export of coals since the removal of the duty—together with the very gratifying advance of wages to the miners, combine to prove that even with all the competition that exists, sea-borne coals cannot be supplied to the Irish market at anything like the prices of the last few years. Again, it has been said, truly, that turf is the fuel of the poor, from its great convenience for their

circumstances; and were the price reduced to a rate which does not seem unattainable, a roomkeeper should have his day's fuel at a cost of little more than one penny. But latterly, owing to the great advance in the price of coal, turf has reached still higher prices in proportion. Further, cheap fuel is the basis of many manufactures; and in this respect, by the application of capital and skill, Ireland will be enabled to compete with other countries. In proof of this, the town of Mountmellick has at the present day five steam-engines, all driven by steam produced by turf. One of the largest of these establishments has given the results of the experience of some years, and being conducted in a systematic manner, the calculation, may be depended on. The proprietor of the concern referred to states, that the medium quality of turf, delivered at 5s. to 5s. 6d. per ton, (the price he has been paying under the present very defective system of cutting, saving, and drawing the turf,) will produce fully as much steam as Scotch coal at 10s. per ton. Now the sum of money paid annually by the city of Dublin for coal, is from £300,000 to £400,000; one half of which, at the least, might, with great profit and advantage to all parties, be expended yearly in remunerative labour in Ireland. That turf can be made available for steam-power, both for locomotion and otherwise, the following advertisement, recently put forth by the City of Dublin Steam Navigation Company, abundantly proves:-

"'The City of Dublin Steam Navigation Company are ready to receive proposals for the supply of 67,000 boxes of turf for the use of their steam-vessels on the river Shannon.

"'P. Howell, Secretary."

"Then, as to railways in Ireland, with reference to fuel, there can be no doubt that the locomotive department will be much more expensive here than in other parts of the kingdom which are favoured by the proximity of coal, if the companies in Ireland have to import coke, instead of making the proper arrangements for the use of turf, which will come so much cheaper.

"Third, Nothing can be worse than the whole system of the turf trade to Dublin at present; there is no capital in the first instance (with very few exceptions) to enable the persons in cutting the turf to subsist, without borrowing or taking expensive credit for their support during the season. The general practice is, to arrange with some huxter or small provision dealer for the supplies of meal and other requisites during the time they are occupied in cutting and saving the turf; this is to be paid when harvest comes round, for which accommodation they pay about 30 to 40 per cent. more than the value of the articles if they had been paid for in cash; and there is not a more fruitful source of acrimonious litigation at the petty sessions than the settlement of those extortionate transactions. Again, between holy-days and wet weather, almost one-half of the season is lost; there is no provision made to enable the workmen cutting turf to stand out during a wet day, nor any means used for artificially and effectually drying it; whereas, a shed on a rail, moveable as the work went on, or even an oiled linen cape, similar to those used by the police, would sufficiently protect a man There is generally no hard road into the bog, by which to remove the turf in bad weather; then the average time taken by a boat for each trip to Dublin is from three to four weeks. All these, with other unfavourable circumstances, increase the cost of the turf, without bringing any augmentation of comfort or advantage to those engaged in this miserable management.

"It frequently happens that, on the introduction of important and extensive improvements, old interests are

injured. Not so in this case. No person need be displaced to meet the changed circumstances: alterations would take place, no doubt; for instance, the master of a boat would, in all probability, perform his trip in about as many days as there are now weeks consumed; but he, and all concerned, would be better paid; while the canal companies, by reducing their tolls to a very small comparative rate, would greatly increase their aggregate income; and the bog-owner, instead of his present petty and uncertain income, would receive fair and safe remuneration.

"It will not be requisite here to enter into a detail of the improvements that capital, skill, machinery, and science, may bring to bear on this important subject; but let any ordinary mind look at the probable effect that will be produced, in the first instance, by unwatering a bog, from a large cut or branch canal being taken into it, thus producing a hard safe bog to work upon, instead of a swamp, and the operation of saving the turf half accomplished before being cut out, with tram roads, cover for working in wet weather, and other facilities, in order to be ready on a large scale for favourable, dry weather, ample capital to enable a company or companies (for there is a wide field for many) at the proper time to stock their depôts with thousands and tens of thousands of tons of the best turf; add to all this, the incentive to industry that would be found in cash-paid labour, instead of depending on credit for subsistence; and it is not too much to affirm, that fuel of superior quality can thus be produced for less than half the present cost; and, in fact, that it may fairly be brought into competition with sea-borne coal, not only for domestic, but for manufacturing purposes, to great public advantage.

"With reference to risk in the undertaking, and the

rapidity and certainty with which returns to shareholders can be made, all the operations in the cutting out, saving, and selling sections of bogs, are as capable of accurate calculations, as manufacturers generally—certainly more so than mining operations, or railway speculations; whilst the money laid out in spring and summer in labour, returns with its increase by the sale of the turf in winter; twice blessed—first, in the employment given, and again, in the cheap and abundant fuel produced; the capitalist, at the same time, receiving ample remuneration for the investment.

"But should science be enabled to bring to perfection the use of turf, by charing, coking, or otherwise, so as to overcome the difficulties that have hitherto prevented its being applied to the making of iron—there are no means of adequately estimating the importance of the result to the nation at large, as iron-stone is to be found in unlimited quantities, almost on the surface, in various districts.

"Viewing the whole subject, it is not too much to say, that there does not exist any one project that would be productive of more important benefits to this country, (particularly at the present time) than the development of those almost inexhaustible sources of employment, comfort, and wealth, which lie at present waste, in the bogs of Ireland; a project which, if carried out, even with ordinary skill and liberality, would confer on the people the blessings of a prime necessary of life in such a climate as that of Ireland—cheap and abundant fuel."

<sup>&</sup>quot;We have read the above carefully through, and so far as we are at present competent to judge of the intentions of the writer, we most cheerfully subscribe to it.

<sup>&</sup>quot;We have also before us a specimen of turf or peat prepared by evaporation, without either compression or other

mechanical or chemical preparation, which, if sufficiently abundant, we doubt not would bid fair to supersede the use of both coal and coke; but of the manner in which this evaporation was superinduced, or the working of the system brought under notice by Mr. Classon, we are unable more fully to speak. We had intended, as we promised last week, to offer a few remarks on the abuses so frequently permitted on turf-bogs in Ireland, but will for the present, forego our intentions till better informed of Mr. Classon's plan, which may, perhaps, render any remarks of ours a work of supererogation; but when better informed, as we hope to be, of Mr. Classon's prospects and intended operations, if we can be of any service, he has only to command us, and, for the present, merely wish him 'good speed,' in which we hope to be joined by every kind heart ' who can feel for another.' "

<sup>&</sup>quot;[Since the foregoing was in type, we have seen a proposition, from the pen of Mr. Jasper W. Rogers, C.E., which, we understand, has been some time under consideration by government, for 'the permanent employment of the Irish peasantry, by the production of peat and peat-charcoal as a fuel and a fertilizer.' It is dated November, 1845, and points out facts particularly on the question of the value of charcoal as a manure, and the immense loss sustained by the country by not using our own fuel, which are of the utmost value in consideration of the question. That the use of carbon as a fertilizer, in proper quantities, would be of the utmost value, we presume, cannot be questioned; and we only wonder that what had so long been within our reach, had not been suggested until thus brought forward by Mr. Rogers; but we find that since that, the Agricultural

Society of England offered a prize of 20 guineas for the best essay on its use. This will bring the question forward as it should, and does but proper justice to Mr. Rogers's proposition.]"—Extracted from The Farmer's Gazette of the 20th June, 1846.

## MAKING OF PEAT-FUEL IN FRANCE.

"The cutting and making of turf is a branch of industry growing into great extension in France. Upon 2,527 "tourbieres," the works registered or classified are—

"These facts are from the official accounts made up to 1842, since which the manufacture has much increased; and it appears that at the period stated the number of workmen employed was 38,948."

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### NOTE

# ON THE MAKING AND MANUFACTURE OF IRON BY PEAT AND PEAT-CHARCOAL.

(Extracts from the "Voyage Metallurgique en Angleterre," published in 1837.)

The above-named work, which is the result of a series of investigations carried on by a Commission of French Engineers, on the Continent as well as in England, gives the most accurate information yet collected, on the state of the iron trade generally, and as regards the use of peat-fuel and charcoal for smelting, puddling, rolling, &c. The following are the leading facts, which entirely overset the erroneous impression, that these fuels are not suitable for such purposes. It appears that—

"In the department of the Landes—France—there are iron works at Ichoux, which consume turf only; the cost there, is about 8s. per ton. Forty-five cwt. of turf, and twenty-three cwt. of pig-iron, give one ton puddled iron. Twenty-six cubic feet of turf, and twenty-five cwt. pig, yield twenty cwt. bar-iron of superior quality.

"M. Muller, of Wadenhammer, a manufacturer of leading notoriety, has proved by actual working test, that an equal quantity of turf-charcoal, used in place of wood-charcoal, produces a *greater* quantity of produce from the ore, than the best wood-charcoal."

"At Wachter-Newnhammer, it was found, that when

equal parts of turf-charcoal and wood-charcoal were used, in place of wood-charcoal solely, the quantity of ore was raised from three hundred and eighty-six lbs., to four hundred and sixty-four lbs., the iron being excellent."

"There are at Ransko, in Bohemia, iron works for smelting—cupolas for re-melting pig—and reverberating furnaces, &c., for making bar and plate-iron. The ore is but middling in quality. The fuel, turf and charcoal only, the turf being of light texture, and not in any way prepared or pressed. The fuel consumed to make one ton of iron is about thirty-four cwt. of turf, and thirty cwt. of charcoal; the cost of the first, is less than 9s.; the latter, about £1. 4s; smelting, therefore, costs about £1. 13s.; and the total cost of pig-iron, about £3. 15s. per ton. The quality of the iron is the highest."

"In Bavaria there are iron works similarly worked. One at Königsbrunn, carries on the whole operations of fusion, puddling, re-heating, and rolling, solely by peat fuel. The commissioners state that the turf is not pressed, but carefully dried, by means of heat from separate fires, or from the furnaces. Bertheir states the analysis of this turf to be—

Volatile matter . 70 6
Carbon . . . . 24.4
Ashes . . . . . . 5

30\(\frac{1}{4}\) cwt. of this turf, to 22\(\frac{1}{4}\) cwt. of pig, produces one ton puddled iron.

30 cwt. of dense turf, to 24½ cwt. of puddled iron, produces one ton small bars of fine quality."

The apparent average is that 32 cwt. properly dried turf, to 201 cwt. pig gives 1 ton castings.

30 cwt. turf to 21 cwt. flat iron, one ton plates.

Upon the whole, it appears, by the investigations of the French Engineers, that peat fuel is generally used on the Continent in the making of iron, and that turf-charcoal is fully equal, if not superior, to wood-charcoal, for all purposes of iron manufacture.

This fact, therefore, being incontestably proved, it cannot be necessary to point out to the Iron-masters of England, the superior value of "charcoal iron;" nor the advantages which will arise from its general manufacture in this country, by means of a fuel, say one-fourth the price of charcoal of wood; yet not only equal, but superior for the purpose. The following extract from "The Industrial Resources of Ireland," gives analytical and other facts of much importance; and sets the question of the real value of peat-charcoal completely at rest.

"When compressed peat is carbonized, it gives a fine coherent coke, which contains very little ash, and amounts to above thirty per cent. of its weight, when the coking is properly carried on. The density of this coke is greater than that of wood-charcoal, being found to range from 913 to 1040."

"The iron furnaces of Voitoumra, gives from turf, when coked in small vessels—

Charcoal		40.25	per cent.
Tar		24.50	"
Watery liquor		14.0	"
Gaseous matter		21.25	66

100 "

"The economical carbonization of turf, is carried on in heaps, in the same manner as that of wood..... The mass must be allowed to heat more than is necessary for wood..... The quantity of charcoal obtained in this

mode of carbonization, is from twenty-five to thirty per cent. of the weight of dry turf."

The value of peat-charcoal is, therefore, evident: but it is right to observe, that, although the calculations of *The Amelioration Society* have been grounded on the production of charcoal from dried turf being only 25 per cent. which is the minimum quantity produced by manufacture "in heaps," as described by Sir Robert Kane, the mode of operation, although equally simple, will be such that the density and quantity obtained by "coking in close vessels," will be had by the Society.

It is useless to go into calculations to prove that English iron, made by means of peat-charcoal at the price of one guinea per ton with carriage, by our own manufacturers, must cost so low a sum, in comparison to that of foreign iron, that the English market will no longer admit the latter—but, the admirable appliances and machinery possessed by our iron-masters, when aided by an almost pure carbon as a fuel, will produce a class of iron infinitely superior to any which can be had from abroad. In fact, it may be anticipated that England will soon occupy other markets beside her own, with a description of iron, not alone "best, best," but the best that can be made.

But there is a fact of recent occurrence, which should, perhaps, claim the attention of the iron-masters of England, anxiously, at present. It appears by experience of iron ships in action, that the effect of splintering of the iron has been so great, it is recommended that our ships

of war shall no longer be built of that material. It has been stated that practice has turned out quite contrary to expectation; as it was supposed that the aperture made by a cannon-ball would have been a clean hole, without splinters; whereas both the plate and angle iron, have splintered like metal.

To those who understand the different qualities of iron, it is not necessary to say, that if a pure kind had been made use of, there would have been no splintering; and that the hole made by a shot ought to be a clean one, or rather, slightly burred within. Thus, the fact of making our iron almost entirely by sulphureous fuel, bids fair, in this case at least, to mar a measure of paramount national importance. If it be found that our plate-iron used in ship-building, proves its unmalleability and brittleness, in the case of concussion from a shot, what becomes of the boasted value of iron vessels, in resisting concussion against the sharp points of rocks? And if a fracture be made in splinters, what means can be taken to staunch?—Certainly not any with good effect. -Therefore, the evil strikes against the whole trade of ironship building; and, I hesitate not to say, entirely from the one cause-that of iron being made solely by sulphureous fuel. That plate and angle iron of all kinds fitted for the purpose, can and ought always to be made so as not to splinter, there cannot be a question; and it is not perhaps too much to say, that it behoves the trade to take measures to prevent the loss of that which has already caused so great a demand upon them; and which may now be overthrown for want of explanation of facts: while care should be taken not to permit for the future, the use of any iron in ship-building, finally prepared by sulphureous fuel. In fact, each plate used for such purpose should be tested, as well for the general and ultimate good of the iron-master, as for that of the country, which is deeply interested in the question.

There never was a period in the annals of English trade, when she so much needed pure and sound iron as the present. First, in the instance I have given; next, in her railways. From the rail to the very step upon the carriage, all the intermediate parts require sound malleable iron. If even the most trifling part be unsound, how much depends upon it! Yet the simple action of a jet of sulphureous vapour, issuing from the coal that either makes or forges the iron which composes a railway axle or a rail, may produce the loss of life of hundreds, although no human eye can see the evil in the work; and this is within proof of all who please to try it. Wherever that jet strikes, as it issues from the fuel, it perfectly deprives the part of malleability; and subsequent concussion acting upon it in that state, makes it fracture with almost equal facility to castiron. So long as sulphureous fuel is used, at least in the final processes of making iron required for such purposes, this evil can scarcely be guarded against, because nothing short of testing almost every foot of bar or plate, can overcome it, arising from the cause stated.

Again, what fearful results daily occur, from using sulphuretted iron in boilers! Plates so brittle that they will not bear a flange, and barely the blow of the punch without cracking, are used under the denomination of malleable iron, and subjected to a pressure equal to that assumption. The consequences are told daily, in the explosions which take place in boilers; and scientific men weary themselves in humane efforts, to discover the cause, and means to prevent the evil, which perhaps rests alone with the material used. This fact need not be questioned, and the testing of boiler-plate will prove the reality to an extent which would not otherwise be

credited; and which I believe is not known even by the makers; because, as I have before stated, until tested fully, it cannot be detected.

To the worker of iron also, almost greater advantages are offered by the use of peat-charcoal. The price, taking the calorific value into consideration, will not exceed the average of smiths' coal; and under any circumstance, the article made by it will be of higher value as to strength, &c., while the time in making will be much less. The action of the charcoal is to carbonize the iron. Its strength and malleability is of course increased, and a crack, or flaw need not be feared under almost any circumstance.

Long personal experience and a necessity to produce iron work in complex form, to possess great strength, while as light as possible, has proved these facts; and in eight years of actual practice on the point, I have not known of a single flaw in any work forged by it, even in the most severely-tried crank-axles. That workmen will gladly seek it, when once they know its advantages, there can be no doubt, from the fact, that in critical formations of work the labour and skill required will be much less than working iron with sulphureous fuel. The same iron I have had frequently tested in my presence by one fuel and the other, and in every instance the coal-worked iron has failed in the peculiar tests, as compared with the other. But it is unnecessary to dwell upon a fact which all iron-manufacturers will understand; and the advantages pointed out are so easily within reach of proof, that it would be waste of time to do more than make the "bane and antidote" public, and leave the test, if doubt exist, to those whom it so deeply interests, as well personally as upon the score of public good; and it will afford me great pleasure to give to all concerned in the question, every information which I possess.

### NOTE.

# PEAT-CHARCOAL AS A FERTILIZER OF THE SOIL.

(Extract from Report to the Irish Relief Commissioners, by Jasper W. Rogers, C.E.)

#### PEAT-CHARCOAL AS A FERTILIZER.

"Ir may be well to say, that I was first attracted to the action of charcoal on vegetation, by an interesting paper which I heard read about four years since, at the Royal Victoria Gallery, in Manchester, detailing the particulars of the experiments which had been carried on at the Botanical Gardens of Munich, and pointing out the beneficial effect of carbon upon many varieties of plants.

"The idea then struck me, that both the soil and peat of this country made them peculiarly applicable to aid each other, and a variety of experiments, which I have since made, have fully proved the advantage of charcoal or carbon as a fertilizer. The following extracts from the paper I allude to, forcibly impressed themselves on me at the time:—

"The first experiment which naturally suggested itself, was to have a certain portion of charcoal mixed with the earth in which different plants grew, and to increase its quantity according as the advantage of the method was perceived. An addition of two-thirds of charcoal, for

example, to vegetable mould, appeared to answer excellently for the gesnera and gloxinea, and also for the tropical aroideæ, with tuberous roots; the two first soon attracted the attention of connoisseurs by the great beauty of all their parts, and their general appearance. They surpassed very quickly those cultivated in the common way, both in thickness of their stems and dark colour of their leaves: their blossoms were beautiful, and their vegetation lasted much longer than usual, so much so, that in the middle of November, when other plants of the same kind were dead, those were quite fresh and partly in blossom. Aroideæ took root very rapidly, and their leaves surpassed much in size the leaves of those not so treated.

"'A cactus, planted in a mixture of charcoal and earth, throve prodigiously, and attained double its size in a few weeks.

"'At the same time that those experiments were performed with a mixture of charcoal and earth, charcoal was also used, free from any addition, and in every case the best results were obtained. Cuts of plants from different genera, took root in it well and generally. Pure charcoal acts excellently as a means of curing unhealthy plants: a doryanthus excelsa, for example, which had been drooping for three years, was rendered completely healthy in a very short time by this means; an orange-tree, which had a very common disease, in which the leaves become yellow, acquired within a few weeks a healthy green colour, when the upper surface of the earth was removed from the pot in which it 'was contained, and a ring of charcoal, of an inch in thickness, strewed in its place, round the periphery of the pot.'

"It is almost unnecessary to say, that one of the main constituents of vegetation is *carbon*, and in proportion to its proper supply to the culture of all plants, either by the

atmosphere, or otherwise, depends the luxuriance and vigour of their growth. It cannot be requisite to enter into minute detail to prove a fact so well known; but it is desirable to point out, that the quantity of carbon used in manure is by no means commensurate with the quantum found to exist in the plant grown from it—hence, it is evident, that the luxuriance of the plant principally depends upon the carbon, drawn partly from the soil, but principally from the atmosphere, which at once accounts for the greater or lesser vigour in vegetation, according to the nature of the season;—in other words, the greater or lesser amount of carbon afloat in the atmosphere; and, therefore, agriculture is now left mainly dependent upon what cannot be controlled; but for which a remedy may with ease be applied.

"Sir Robert Kane gives the following highly valuable table, showing the amount of carbon in each plant, which he names, viz.—

Wheat	Carbon,	46.1	per cent.
Wheat Straw	do.	48.4	do.
Oat	do.	50.7	do.
Oat Straw	do.	50.1	do.
Potatoes	do.	44.0	do.
Turnips	do.	42.9	do.
Red Clover Ha	y do.	47.4	do.

"This, in itself, is sufficient to prove the indispensability of carbon to vegetation; and the experiments at Munich incontestably decide the value of charcoal as a fertilizer of the highest order. My own, made under many different circumstances, have proved that the tenderest plants will vegetate and luxuriate abundantly in pulverized charcoal, unmixed with earth, or any other substance; and I have

found that even the most moderate quantity produces highly desirable effects; but, in addition, it possesses a singularly beneficial property quite foreign to other manures. It is known that in the growth of all plants a putrescent matter is yielded from the root, which if not absorbed either by filtration or evaporation, or removed by working up the earth around, produces evil of much magnitude; which may be well compared to that arising to human life by the retention around it of those excretions of the pores, &c., which nature has ordained. This is entirely corrected by the presence of charcoal.

"The putrescent matter is at once absorbed, and decomposed, and the plant is not alone relieved from the evil, but gets back nutrition in the shape of carbonic oxide. It need scarcely be said that so admirable and bountiful a property stamps at once its value and identity as a wise and beautiful provision of nature which, like many others, we neglect and are ungrateful for.

"To this climate and soil its advantages are particularly adapted. In a pulverized state it acts, in the first instance, as sand, thus making the soil desirably porous. During rain it absorbs a certain amount quickly, and then, resisting all further saturation, aids in filtration of the water downwards, or in evaporation when rain ceases, invariably retaining in itself its full amount of moisture, until the superabundance around has lessened, when it not alone gives out that moisture, but with it yields a portion of its carbon; and this action is unceasing until entire decomposition takes place, which is equal and gradual, usually not before four to five years.

"Thus, it is not alone a most lasting manure, but one by which the utmost ignorance cannot suffer. Even the greatest proportion will not do evil, while the smallest will do good; and were it not that equal blessings have lain

dormant for centuries at our doors, it might be doubted that so great a good could have been so long unknown. It is known, however, that the principal value of farm-yard manure lies in its straw, because of the quantity of carbon which it contains; yet this straw is given back to the land, at certain loss to the farmer, while carbon, pure, and in its fittest form, lies within reach unused."

# PEAT-CHARCOAL.

The following facts as to peat-charcoal, and the particulars of a few recent experiments on its use as a fertilizer for all description of plants, I beg attention to—

1stly.—It is an absorbent of the highest order, possessing the power of taking in 80 per cent. of moisture.

2ndly.—It possesses the capability of perfectly correcting, and immediately decomposing, all putrescent matter coming into contact with it.

3rdly.—Used as a fertilizer, it yields to the roots of the plant, carbon in its purest state, in such quantum as nature demands.

4thly.—It holds the full extent of the moisture which it receives in the ground, until the soil around it becomes drier than itself; then, and not till then, giving that moisture out. Thus opening, it may be said, innumerable reservoirs to uphold and invigorate the plant till moisture comes again. And when that occurs superabundantly, charcoal becomes a filterer. It will receive its due portion of water only, and then is like a hard grain of sand, which aids in carrying away the overplus moisture from the roots of the plant, round which it otherwise would rest.

Its power of decomposing putrescent matter is singularly

advantageous. It converts that which is evil into good, and gives to the soil, by such decomposition, increased fertilizing power. Its uses, therefore, are manifold; but, above all, it supplies to the plant *pure carbon*, which is essential to its vigorous growth, and for which it is now left mainly dependent on the atmosphere only.

## FIRST EXPERIMENT.

DISEASED POTATOES were planted in the usual manner, in October, 1845, the seed being whole, and small sized; the ground slightly dressed with farm-yard manure, and upon each set was thrown a handful of pulverized charcoal; about as fine as coarse sand. The result was, an abundant crop, perfectly free from disease. The kind, "the cup" potato.

## SECOND EXPERIMENT.

In the spring of this year four diseased potatoes were planted in separate garden-pots, the first entirely peatcharceal; the second, half, mixed with the usual gardensoil; third, one-third; and the fourth, one-fourth char-The pots were placed at first, on the surface of a garden-walk, so as to have no aid from the soil. The shoots from each came up about the same time, but presented a singular difference in appearance: those in the charcoal alone, being a peculiarly dark green; the others perceptibly lighter in colour, as the quantity of charcoal lessened. On the other hand, those which had only one-fourth charcoal, subsequently grew quickest, while those with all charcoal, slowest. The tops of the plants having become too heavy, the pots were obliged to be plunged in the soil, to hold them upright; and after about a month, having found that the roots had shot through at the bottom, which of

course marred the accuracy of the experiment, I broke the pots to ascertain the results so far. This was in July last.

The potato in the pure charcoal, was perfectly unchanged in outward appearance, but elastic under pressure of the hand; when cut, it presented but slight indication of the disease within, and had much the look of bees'-wax. On examination it was found that all the fecula was withdrawn, and that what remained was, in fact, the cells, or fibrous part of the tuber; prevented, it would appear, from decomposition, by the action of the charcoal. Cut into thin slices and held to a strong light, the naked eye could perceive the formation of the cell, and the absence of that which it had held; but subsequent analysis proved the fact that no fecula whatever remained.

The indications of new tubers were minute, and not many. While in the pot which contained only one-fourth charcoal, they were very numerous and healthy in appearance; the set also was almost entirely decomposed. The two intermediate pots had burst in the ground, and therefore, no fair judgment could be formed; but the seed, in each was sound in proportion to the quantity of charcoal.

On examining the stems, or shaws, they presented a very remarkable difference. Those produced from the charcoal alone were short, elastic, and strong, resembling the stems of a shrub; while that from the one-fourth charcoal did not show this peculiarity. Throughout the experiments, however, the difference of colour in the leaves was at all times apparent; but this effect is produced by charcoal on all description of vegetation, presenting the appearance of peculiar vigour.

The results of a long series of trials and proofs as regards the potato have amply satisfied my judgment, that peatcharcoal is the most fitting manure which can be used under the existing circumstances of the disease; and subsequently to my publications on the subject, many writers have borne out the theory and facts. Carbon supplied to the root of the potato gives back to it that which it has lost by the disease; and there need be no question that potatoes planted in autumn, and manured with charcoal, will produce sound crops. I cannot hesitate to assert that which I have incontestably proved; and although this fact, which I published when the potato disease first became public, has not yet been generally admitted, I have no fears in inviting and seeking for proof to the contrary; which I now do formally, as I have on several former occasions.

In the storage and pitting of potatoes also, pulverized charcoal will be found almost a perfect prevention to decay. Whether stored on lofts, or in pits, let all the interstices be filled with charcoal, about as fine as coarse sand, so as to come as much as possible in contact with each potato—the result will be, that the charcoal will absorb all superabundant moisture as it may be given out, and any put escent matter yielded will be at once corrected. The tubers will, therefore, remain sound, and the charcoal itself will become even a more valuable manure, from the matter it will have absorbed and decomposed.

# THIRD EXPERIMENT.

At the same time that the potatoes which I have mentioned were planted, wheat, oats, peas, beans, turnips, and mangel-wurzel were similarly treated; each kind being placed in pure charcoal, one-half, one-third, and one-fourth. Vegetation seemed to take place in each alike, and the same appearance exhibited itself in the rich strong green of those grown in the charcoal alone, as compared with those in only one-fourth. But after having been plunged, the roots of all protruded into the soil, and it was useless to continue the experiment further; nor indeed

was it necessary; for the fact I have already stated was again proved by practice, namely, that the smallest quantity of charcoal applied to the roots of a plant will do good, while the greatest cannot do harm. All the plants I have named throve luxuriantly, in every instance; but those in charcoal alone, although peculiarly rich and strong in appearance, progressed more slowly than the others.

## FOURTH EXPERIMENT.

Three cuttings were taken from a root of the common rhubarb; and one sod of turf having been charred and pulverized, they were planted in it, and covered up in the usual way; being at the distance of about ten yards from the mother plant.

The growth of those manured by charcoal was singularly great. The leaves grew to about one-third larger; the colour quite dissimilar to the other, being much darker; and the stem possessing infinitely greater substance; the yield being nearly two-thirds more from the same number of leaves taken from each.

# FIFTH EXPERIMENT.

Five hundred early York cabbage-plants were purchased from a market-gardener on the day he planted a large patch of the same exactly, for himself. In the evening, the men who planted his, were employed to plant those, in ground previously manured with carbon only. The distance between the position of each was about one thousand yards. Yet, the latter were headed, and in use fully ten days on the average, before the former, and were in every respect superior; although the market-gardener's ground had been richly manured in the usual way. Similar results were experienced with onions, pars-

nips, and carrots; but no comparative tests have been made by me.

### SIXTH EXPERIMENT.

In order to test the effect on plants exactly similarly situated, two baby fuchias were selected, growing at each side of a narrow walk. They were almost identical in appearance, when peat-charcoal was given to the root of one, early in spring, the other left unchanged. The effect on the former was most striking; first, as to the greatly increased luxuriance, and the dark green of the leaf; and, subsequently, it became literally covered with blossoms beautifully rich in colour. In fact, when each were in bloom, they seemed to be a totally different variety.

Subsequently, a house fuchia, (the lobe-leafed,) which had been declining, had about two inches of soil taken from the surface of the pot, and peat-charcoal placed instead, without at all disturbing the root, the object being to see, would the charcoal, by penetrating into the soil, which it quickly does when watered, correct the evil of the excretory matter which might have surrounded the root. The effect of the treatment was apparent in a short time; and this plant has been since pronounced by many highly competent judges to be the finest they had ever seen, although, when the charcoal was applied, it was in a diseased state.

Experiments were made with several kinds of seed, all being highly favourable to the use of charcoal. On pelargonium seed it was most remarkable: the seedlings in every instance, when planted in the usual soil, well impregnated with pulverized peat-charcoal, thriving in a given time, to nearly double, if not fully so, the size of those planted without it. The dark rich green again pre-

dominating, and the stem being singularly strong and firm to the touch. In short, under every circumstance, the use of charcoal was found to produce the most beneficial results, which perhaps are fortunately of a nature that come within the reach of every person, almost, to try even those who possess but a few house-plants.

Carbon, of one kind or other, is within reach of almost all: to all, then, I would say, test what I assert, from the florist to the farmer; and happily shall I yield any further information required, to aid in proving the statements I have set forth.

But, if proof be necessary that carbon should be supplied abundantly to the root of plants, it is to be had from an incontestable fact, exhibited in London first, and then in every manufacturing city in the kingdom. And it is singular, that towns should furnish such evidence for the benefit of the country.

To those who will take the trouble of observing, it will be apparent, that even in the closest square of the densest part of London, there is, at almost all periods of the year, to be found bright and verdant grass; rich and beautiful in appearance. Compare, and it will be seen to exceed in verdure what can be had in the country round. "Gray's Inn" will, in fact, from first to last of the year, exceed in the verdure of its grass, Kensington Gardens.

The cause is evident. The town grass is constantly manured by pure carbon, falling upon it in the showers of "blacks" so well known to all large cities; and every fall of rain drives that carbon to the root: hence, its peculiar verdancy. Now the trees and shrubs in the close parts of the city exhibit a directly opposite appearance. It cannot therefore be said, that the carbon so abundantly afloat in the atmosphere of London causes the effect described; for if so, its trees and shrubs should

be more luxuriant than those in the country. In fact, a little thought will show, that to "the blacks" only, can be ascribed the peculiar verdancy of the grass in all manufacturing and close towns. And if its effect be so striking, where all other vegetation lingers or dies, what may not be expected, from a liberal use of pure carbon to the roots of plants, in situations where nature gives all her other blessings for their growth and luxuriance? We have but to think, and we shall see, and wonder we have not before done so, that carbon is the foundation or life-stream of vegetation; and that its ample supply to the plant is as essential to it, as is that nutriment which gives life to the human frame.

# ON THE USE OF CHARCOAL AS A FERTILIZER.

Extracted from the FARMERS' MAGAZINE, Nov., 1846.

"A few months since Mr. Jasper Rogers, C.E., drew the attention of the public to the importance of turf or peat-charcoal as a manure, and as affording abundance of remunerative employment to the unemployed poor of Ireland. After this publication, the Royal Agricultural Society of England offered a premium of twenty sovereigns for the best essay on peat-charcoal as a manure. And within the last month Mr. Rogers has published another work on the same important subject. . . . . . In this work he adds his testimony to the value of turf-charcoal as a fertilizer, and attributes its powerful influence as a manure, to its powers (amongst other good properties) of absorbing the excretory matter which plants deposit in the soil. . . . . .

That the carbon of the charcoal operates so beneficially upon plants, amongst other modes, by a gradual combination with oxygen, hardly admits of a doubt. Leibig gives the results of a series of experiments by 'Lukas' on the use of charcoal as a manure, which seem to corroborate this opinion. . . . . . 'The charcoal,' continues M. Lukas, used in these experiments, was the dust-like powder of charcoal from firs and pines. It was found to have most effect when allowed to lie during winter exposed to the action of the air. . . . . The action of charcoal consists primarily in its preserving the powers of plants with which it is in contact, whether they be roots, branches, leaves, &c., unchanged in their vital powers for a long space of time, so that the plant obtains time to develope the organs for its future support and propagation. . . . Every experiment,' concludes M. Lukas, 'was crowned with success.' ..... It is of great importance that the farmer should understand the difference between peat-charcoal and the ashes of this substance. The distinction is very easy to understand; for the peat-ashes, like those of Holland or of Berkshire, (owing to the mode adopted of many burning them in uncovered heaps in the open air) contain hardly anything but the earthy and saline contents of the peat. .... 'We tried it,' (charcoal,) continues Mr. M'Kenzie, 'against well-made stable manure. . . . . . The plants grew well in both cases. . . . The weight of bulbs fit for use manured with the peaty mixture, was upwards of 40 tons per acre, while those produced from stable-dung weighed only about 30 tons. . . . The evidence then is abundant in favour of charcoal as a fertilizer."

# TURF-CHARCOAL AS A MANURE.

## EMPLOYMENT OF THE IRISH LABOURERS.

BY CUTHBERT W. JOHNSON, ESQ., F.R.S.

"The employment of vegetable charcoal as a fertilizer has never been very extensive. For this neglect of an excellent manure its value for other purposes must in most places be admitted as a reasonable cause. But although it may be too valuable a manure, when used in its tolerably pure state, as prepared by the ordinary process of the wood-charcoal burners, still there are sources of supply, as from the peat or turf of bogs, of which it would be well if the English farmer in certain localities availed himself. At such a period as this, when a scarcity of food and the privations of winter are rapidly approaching, I am anxious to remind the Irish farmers and landowners of a mode by which they can enrich themselves, and at the same time afford a considerable supply of remunerative labour to their poor neighbours by the preparation of charcoal from turf or peat. To this end it will be perhaps desirable if I first explain the distinction between the charcoal procured by charring of peat or turf, and the ordinary peat-ashes, like those so long and extensively employed by the farmers near the valley of the Kennett, in Berkshire, or the celebrated peat ashes of the Dutch farmers. Now the distinction is very easy to understand; for the first kind, the peat-ashes, (owing to the mode adopted of merely burning them in uncovered heaps in the open air,) contain hardly anything but the earthy and saline contents of the peat. To give an analysis, 100 parts of some Dutch ashes were examined, and were found to be composed of-

Siliceous earth			32
Sulphate of lime (gypsum) .			12
Sulphate and muriate of soda,	Gla	11-	
ber salt, and common salt			- 6
Carbonate of lime (chalk) .			40
Oxide of iron			3
Loss during the analysis .			7
		-	100

These ashes being totally devoid of carbon (or charcoal) are evidently adapted for the only purpose to which the Dutch farmers apply them, viz., as a top-dressing for their clover or other grasses into which the gypsum of the peatashes enters as an essential constituent. The charcoal being all removed by the combustion of the peat, it is evident that for crops which do not contain sulphate of lime the peat-ashes could hardly be expected to be a fer-But let us examine carefully the tilizing application. analysis of the ashes procured from peat by a different and far less complete combustion of the carbon of the peat and turf. Such an analysis we find in the excellent little work of Professor J. F. Johnston. (Elements of Agric. Chem., p. 189.) The ashes were obtained from Paisley moss by Mr. Fleming, of Barrochan. One hundred parts of each of these contained-

54.12			
			3.02
6.57			5.16
2.99			248
4.61			18.66
10.49			21.23
8.54			3.50
0.90			0.40
10.88		•	43.91
99-10			98.36
	2·99 4·61 10·49 8·54 0·90 10·88	2·99 . 4·61 . 10·49 . 8·54 . 0·90 . 10·88 .	2·99

"From this analysis it will be seen that the first, or white peat-ashes, were so prepared (by merely checking the extent of the burning) that they contained more than half their weight of charcoal. It is to the preparation of this kind of impure charcoal ashes that I am now so anxious to direct the immediate attention of the owners of those estates, in whatever portion of the United Kingdom they are situated, where suitable turf abounds and work is difficult to obtain. I hardly deem it necessary to prove to any one the value of charcoal as a manure; and if it was necessary to obviate the suspicion that there is any difference in the effect produced by the use of charcoal-ashes and the impure variety of these ashes afforded by peat, I am readily supplied with the means of doing so by a recent report by Mr. Peter Mackenzie, of West Plean, near Stirling (Quar. Jour. of Agric., 1846, p. 467.) He tells us that he has been for some years past trying experiments with peat, charred peat, and peat-ashes, as a substitute for stable-manure, and for many kinds of crop grown by farmers and gardeners. He remarks, 'In the spring of last year, I collected a quantity of peat for various purposes, and part of it was intended to be charred or burned. It was not so well prepared for burning as I wished, a good deal of moisture being in it; however, a good fire was made of wood to begin with, and as the peat dried it was drawn to the fire, and in this way was kept burning for two weeks. It required little watching, only once or twice in twelve hours. The partially-dried peat was drawn to the fire, because it was intended to have a quantity of charred peat and ashes mixed together; and, in order to obtain both, the fire was kept in a smothered state to char the peat (let the farmer mark the distinction). It commonly burst through in some parts, and there supplied the ashes. When we had a quantity to begin with, the unburnt peat

and the charred, with the ashes, were all well mixed together; at least one-half of the mass was unburnt peat.' This mixture was applied to land about the beginning of May, to a sandy soil, for a crop of Swedish turnips. The quantity used was at least at the rate of two hundred bushels per acre. 'We tried it,' continues Mr. Mackenzie, 'against well-made stable-manure, in a state like mould, cut well with the spade, which was applied in at the rate of about twenty tons to the acre, and spread into drills like the peaty mixture. The plants grew well in both cases. We tried to ascertain the amount of produce per acre from each manure as late as the middle of January, 1846; for from the mildness of the season, the turnips till then appeared to be in a growing state, each plant having had about two square feet of surface to grow upon. The surface was kept flat, and the ground chiefly worked with the Dutch hoe. The weight of bulbs fit for use, manured with the peaty mixture, was upwards of forty tons per acre; while those produced from stabledung weighed only about thirty tons. One row of peas was also manured with the peaty composition, and yielded as great a crop as those manured with the stable manure.' Such a preparation of charcoal, although mixed with other substances, the farmer will find very valuable in a variety of ways. It would constitute an excellent foundation for dung-heaps or sheep-folds, since charcoal very extensively absorbs the gaseous matters of putrefaction, and when used in considerable proportions, would also imbibe all the drainage matters of the sheep or other live-stock. It answers as well also for a covering for dunghills; but to this end, again let me remind the farmer, that he must only carbonize or char his peat or turf; he must, to accomplish this, by covering the burning heap with earth or green turf, retard, regulate, and reduce the extent of the combustion as much as possible. It is to the presence of a considerable portion of carbon in the ashes of land pared and burnt, that the advantages of this now nearly-exploded operation may be attributed. The ashes of a pared and burnt chalk soil from Kent contained four to 5 per cent. of carbon; that of a light Leicestershire soil contained 6 per cent.; and that of a stiff clay soil from Mount's Bay, in Cornwall, contained 8 per cent. of carbon. In an experiment reported by Mr. Pusey, upon dressing land 'of the very stiffest description of the Oxford clay' with ashes procured by burning the soil, the following results per acre were obtained (Jour. R. A. S., vol. vi. p. 478):—

The soil simple, produced of wheat . .  $37\frac{1}{2}$  bushels

— dressed with 80 cubic yards of

burnt clay . . . . . .  $45\frac{1}{2}$  —

The value of charcoal, therefore, as a fertilizer is undoubted, under almost whatever impure variety it presents itself.

"And the value of well-prepared turf-charcoal is not confined to agriculture. Mr. Rogers, in a work just published,\* (which I commend to the perusal of the friends of Ireland,) has successfully proved its value for the use of the iron manufacturer. He tells us, p. 32, 'the experience and practice of eight years of very active labour in constructing locomotive carriages for common roads, which required iron to be prepared of the greatest possible tenacity with the least possible weight, has proved to me the in-

<sup>\*</sup> Letter to the Landlords and Rate-payers of Ireland, detailing means for the permanent and profitable employment of the peasantry without ultimate cost to the land or the nation, and within the provisions of the Act, 10 Vict. c. 107. By Jasper W. Rogers, C.E. London, J. Ridgway.

estimable value for that purpose, as well as many others, of turf-charcoal, which I may denominate a natural fuel of the country; and I have been in the habit of having it prepared for smiths' use—infinitely in preference to any coal—arising from my knowledge of the fact that the excellence of foreign iron, and its consequently greatly increased value, as compared with English, (which varies from I to 200 per cent. in favour of the former,) is solely owing to its mode of preparation, entirely by means of turf or wood-charcoal. The cause of this is, that those substances do not contain sulphur, which British coal does, more or less, the action of the vapour of which deprives iron of its malleability, subjecting it to crack in the forging, or break from very slight concussion when in use.'

"For either, therefore, the agriculture or the iron manufactures of the United Kingdom, the preparation of charcoal from turf seems to offer to the peasantry of Ireland a large supply of remunerative labour; and surely at the present period, an effort of this kind seems peculiarly desirable. There is happily, too, a very small outlay of capital needed to test the value of the preparation of this charcoal. The only items of the expense are labour, and perhaps some wood or coals to commence the fires with; and this last is not of any considerable amount, for when once the fire is well commenced, the heap, in the language of the preparers of the turf-charcoal, 'burns itself.' Let then the Irish landowner consider these facts carefully, and ask himself how and where he can make the attempt thus to benefit his poorer neighbours; let him not forget, too, without eventual cost to himself, for the sale of the turfcharcoal will more than repay him for all his outlay. And having well and maturely considered, let him act, and promptly too, upon the conclusions to which he is led

Let no one say, 'I can do but little in this manufacture of turf-charcoal.' Let him rather do that little, and if he can only in this way, during a period of scarcity, find fairly-paid labour for only a few Irish peasants, he may rest assured that he will not pass the approaching rigour of winter the less happily from feeling conscious that he has made one poor attempt to rescue from starvation some few, at least, of his unwillingly idle neighbours."

# PROFESSOR LINDLEY'S OPINION OF CHARCOAL.

(Gardeners' Chronicle, 21st November, 1846.)

(REPLIES TO CORRESPONDENTS.)

"Charcoal—Durus—Use it to your onion and potato crop in preference: but it suits everything. Its being in fine powder is of no consequence..... X X—The only reason why half-burnt wood when plunged in water is not so good as charcoal is—first, that it perhaps is not charred through; second, that there is not so much of it; third, that some of the saline matter will be washed out. Charcoal should be made without access of air, except just so far as is required to maintain a very slow combustion. When reduced to powder it suits all kitchengarden crops, especially onions, potatos, and root-crops."

#### NOTE

## ON THE RECLAMATION OF BOG-LAND.

It is unnecessary here to enter into the question, whether bog or peat is a plant in itself, or that it is a collection of various plants matured, and after death and decomposition, giving life to others; thus, stratum upon stratum composing that vast mass which rises from, (not descends into,) the land upon which it rests. Yet, be the opposing theory right or wrong, which makes peat a defined plant, and shows it from the soil to the surface the same-except that as the depth extends, the lowest part becomes denser, because gravity acts upon the portion underneath, and thus perhaps deprives it of vitality, while that above lives and fructifies; -still it is immaterial for our present purpose to enter into either question, more than to show that all writers or thinkers upon the subject agree, that peat is a living mass to some extent; and, of necessity, the portion upon the surface must be that which contains most This, therefore, will prove that the conversion of vitality. a living substance into a soil fit and proper for the production of vegetation, must, under any circumstance, be a work of unceasing effort; simply because it is seeking, by partial and generally inadequate means to extinguish that life of which Nature, in her vegetative power, so tenaciously holds possession. Hence the necessity which exists for removing from the surface of the land that peat which clearly operates against its reclamation; and when the removal can be accomplished in a manner to produce gold

in return for the operation, it cannot be supposed that even the greatest advocates for other systems of reclamation will oppose the present; particularly as all experience has proved the fact, that bog or peat land attempted to be reclaimed, has presented continuous difficulty unless the surface was effectually changed, or that the peat was of so trifling a depth as to admit of reaching the substratum with ease.

Assuming then, that to remove the bog is the true course, the next natural inquiry will be, can the land be thoroughly drained? The answer may be decisive—It can with perfect ease! and in the drainage, judicious arrangement will not alone accomplish that purpose fully; but the main water-cuts necessary for doing so may be constructed in many instances, so as to become the ready means for extended water-carriage throughout the district; not to cease when the peat has been removed, but to remain, and be thereafter a mode of transport for the produce of the soil, which it may be hoped the operations of the Society will call into existence.

Mr. Griffith, in his valuable report upon the Waste Lands of Ireland, made to the Devon Commission, estimates the extent, including bog or peat, at 6,290,000 acres, of which he states 3,755,000 are improvable for cultivation, or fit for coarse meadow, together with pasture for sheep and young cattle; and he adds, that some of the bog-lands "offer great facility for improvement, inasmuch as there is abundance of clay and gravel immediately beneath the bogs, which are frequently shallow; and, in consequence, the surface, when drained, can be easily and cheaply coated with the subsoil." In his report in conjunction with Mr. Edgeworth, the great agricultural value of that subsoil is clearly defined by the accurate analyses which have been given, viz.:—

### Strata beneath Timahoe Bogs.

-0 1					Marl.	Blue and Yellow Clay.
Carbonate	of	li	me		64	6
Silica					24	22
Alumina					12	72
				-		
					100	100

### Strata under Bogs in Westmeath.

					B	lue Lime Clay.	White Marl.	Blue Clay.
Carbonate	of	lin	e			44.4	87.3	53.0
Carbonate	of	ma	gn	esia		1.4		_
Alumina						27.2	1.1	36.0
Silica .						27.0	.9	11.0
Bog stuff			•		•	-	10.7	-
					-		100	
						100	100	100

We need not seek for higher authority, and it clearly proves the necessity, no matter what the depth, of arriving at that substratum, to obtain valuable soil; but, upon the question of drainage, I have reason to know it is Mr. Griffith's opinion that the bogs of Ireland can be fully unwatered; and the concurrent opinions of some of the most leading engineers of the day set this question entirely at rest. It is to be recollected also, that in removing the peat, (producing from it large profit,) we dispose of, with double advantage, a living mass of vegetable moisture, not alone useless in its existing state, but highly detrimental in its effect of increasing the humidity of the climate, if it have no other injurious tendency; and therefore the re-

clamation of the bog-land of Ireland, in the manner proposed, cannot fail in its purpose, while it accomplishes profit and advantage by every step taken; and the cost of its purchase can be judged of from the fact, that it may be leased throughout Ireland at from 3s. to 5s. per acre.

#### NOTE.

### APPEAL FOR THE IRISH PEASANT.

It is the general impression in England, that the Irish peasant is indolent, and not desirous to make proper efforts for his own advancement; that he not only wishes to be idle, but is more inclined to do evil than good; and that his outrages place him at times beyond the pale of civilization. That the latter is fearfully true, it is impossible to deny, or to divine a cause for the dreadful infatuation which drives him to this madness, unless it is that remnant of barbarity, "revenge for bye-gone ills," which so long stained Scotland with crime and blood; and which, it is too clear, still lingers amongst a portion of the Irish. Many facts may be brought forward to support this supposition, amongst others, that in Tipperary, where the great amount of crime is committed, the people are descended principally from a body of German emigrants called "Palatines;" and it is well known that the German character is deeply imbued with the feeling I describe, which, in many instances, has been deemed a stern virtue. But the investigation avails not here, unless to give the hope that Ireland will, ere long, be as free as Scotland is now from such a barbarism. And it perhaps may be looked forward to, with well grounded expectation, that as the same evil declined in Scotland, exactly in the ratio of the increase of the comfort and contentment of her people, so will it in Ireland, in the proportion that her peasantry shall be raised from their privation and misery. One fears to dwell a moment upon such a subject, lest a single word of palliation might be deemed an excuse for the wild atrocities which have disgraced my unhappy country; but it is not the less a duty to look for the cause, (and remove it if we can,) of that which sinks us amidst the scale of nations. It is also right that the impression which such fearful evils naturally leave upon the public mind, making it feel by the nature of the outrages—that not only the whole population are participators and abettors in the crime, but that the aggregate vastly exceeds in amount the crimes of other countries. Still, it is not because the guilty few commit deep offences, that the innocent many should be punished by being classed amongst them.

In making the comparison between crime in Ireland, and that in England and Wales generally, it may be said that offences against the law usually increase in the ratio of the population, and the space occupied; and that a comparison between England and Ireland in this respect is not just: but the following facts will show that no comparison can be more just; and I set out with it, in order at once to meet such an objection, should it arise.

According to "The Statistics of Ireland," published by "Thom," from the Government returns, it appears, that in the year 1841, respecting which the relative calculations were made, that—

The popu	lation	of E	ngla	ind	and	lV	Val	es			
was									15,9	906,8	329
"		and									
That the	numb	er o	f cu	lti	vab	le	acr	es			
in Eng	gland	and '	Wal	es	was				32,	733,0	000
66		Ire	land						17,0	025,2	280
Therefore,	the n	umbe	er o	f a	cres	s to	ое	ac	h pe	rson	, is-
In Engla	nd an	d Wa	ales		٠.					. 2	· <b>0</b> 6
Irelar	id .									. 2	.08

The two countries, consequently, may be said to be in relative condition almost exactly equal as regards population and space occupied.

Now, by the statistical returns of crime committed in each country, the following facts appear, as regards the number of convictions to the ratio of the population, for four years ending 1844. Since which the average of crime has not been accurately ascertained; but it is presumed rather to have diminished than increased:—

IN ENGLAND AND WALES.

Year.	Number of Convictions.	Proportion of Conviction to Population.						
1841	20,280	l person to	784					
1842	22,733	1 "	704					
1843	21,092	1 "	750					
1844	18,918	1 "	841					

#### IN IRELAND.

Year.	Number of Convictions.	Proportion of Conviction to Population.						
1841	9,287	1 p	erson	to 880				
1842	9,874	1	66	831				
1843	8,620	1	"	948				
1844	8,042	1	**	1016				

Thus, in 1844, the proportion of convictions in

England and Wales was . . . . . . . 1 to 841

While the proportion in Ireland was but . . . 1 to 1016

But let us seek a little further. The comparative number of convictions, which received sentence of death

st named:—		T		***		
Murder, or its attempt-						
		Ireland				21
Conspiracy to Murder .		_		Wales		0
	In	Ireland			•	1
Burglary, Robbery, Rob-						
bery with wounds,						
Sheep-stealing, Lar-						
ceny, Housebreaking,						
and Stealing Letters .						
		Ireland				
Manslaughter		England				
		Ireland				
Rape		England				
		Ireland				
Arson		England				
•	In	Ireland				6
Nameless offences	In	England	and	Wales		17
	In	Ireland				0
Forgery, Threatening Let	-					
ters, and Returning						
from Transportation .	In	England	and	Wales		8
	In	Ireland				2
Assembling armed	In	England	and	Wales		0
	In	Ireland .				2
Administering unlawful						
oaths	In	England	and	Wales		0
		Ireland				

From these facts it is incontrovertible, that the comparison of each class of crime, between the two countries, is most strikingly in favour of Ireland, in all things but those which belong to her political character. Her "murders," "armed assemblages," and "unlawful oaths," emanating from the self-same cause, are committed, perhaps, under the guidance of some fearful conspiracy, disclaimed by all alike, but which still exists, (although amongst a very few in comparison to her population,) and stamps the whole with that stigms which only a few should bear. The following, taken from the returns named, will amply prove my position on this score:—

In 1837 there were 10 executions in Ireland, 6 being in Tipperary. In 1838 there were but 3 executions, none in Tipperary. In 1839 there were 17 executions. 4 being in Tipperary. In 1841, there were 5 executions, 2 being in Tipperary. In 1842 5 executions. 2 in Tipperary. In 1843 5 executions, 1 in Tipperary. In 1844 11 executions,

Thus it may be said, that the crimes of one county have stamped with degradation the character of thirty-two!—the whole of Ireland; and that the entire population suffers for the rash and frightful acts of a very few indeed, driven to madness either by the dictates of wild revenge, or some other infatuation not to be accounted for.

4 in Tipperary.

Having now, I trust, rescued the mass of the unhappy Irish peasantry from the presumed guilt so widely charged against them, I would ask a little consideration of the circumstances which have subjected them to the stigma of idleness and carelessness for their own advancement; which has been so frequently, and with apparent truth, cast upon them.

It has been the habit for centuries of the landholders and farmers throughout the greater part of Ireland, to pay their labourers or farm-servants, not in money, but potatoes; that is, they gave to them a patch of ground denominated a "potato garden;" and charging a certain rent, usually above their own, allowed against it the number of days the labourer worked; the balance being generally closed once a-year. Thus, the "truck system," to a monstrous extent, has for ages existed in Ireland, and still continues; giving to the labourer there, but one description of food, the potato, in return for his labour, and perhaps but one settlement per year. While the "truck system" of England, which ran but from week to week, or month to month—giving the labourer all descriptions of food and comforts he might require—has been, almost by universal voice, cried down and done away with, not alone by desire of the labouring class, but by masters; to whom, although it afforded a profit in one way, it has been admitted, entailed a loss in the quantity of work done. This fact has been amply proved by the evidence given last sessions, before the House of Commons, upon railway labour, even by the contractors themselves; many of whom forcibly pointed out its evils and demoralizing tendency and strongly showed the necessity that even on railway works distant from towns where provisions and supplies should come from, money payments should be made to the labourer, in place of supplying him with food.

It may be well conceived then, that if the system carried on in England, demoralized and lessened the energy of the labourer; that one of infinitely greater evil, for ages existing in Ireland, must have deprived him, almost totally, of desire for effort, or hope that such effort could produce him good. He, in fact, worked against time, not with it—he "put the day over," to use his own expression,

as best he could; for he knew, whether "work or play," he had nothing to look for, in return, but the boiled potato and salt; many a day, too, without the latter. And it is not only contrary to humanity that such a system should exist, but it is contrary to nature and reason, to suppose it could, without evil extending itself to those in the higher grades; because labour, being the source from which wealth springs, cannot be vitiated without spreading its injuries.

As well may it be expected that if the pure streams which issue from the mountain side, and supply health and life to our cities, be contaminated in their progress, they shall still impart purity and vigour; as that the stream of labour, which issues originally, from just as pure a source, will, if permitted to be corrupted and turned to evil, yield good to the nation. Still, that nation depends upon it for its maintenance and strength. The labours of peace, the magnificence of commerce, and the wealth of the merchant princes of the world at large, have produced, perhaps, the brightest gems in the diadems of nations; but those apparent glories have ever been the precursors of downfall, simply because the life-stream, labour—the purity and health of which gives strength and power to an empire, -being permitted to become impure and corrupted, the whole frame became corrupted too, and dissolution followed of necessity.

And this is not the tale of to-day, nor of yesterday, but of ages. Greatness upheld by force of arms, secured to the labourer of the sword, the thought and care and consideration of his lord and master; for the labour given extended to the preservation of the life and welfare of each alike. But the labours of peace entail no such consequences, and in the aggrandisement of wealth by peaceful arts, the claims of those without whose aid it cannot be obtained,

are too often forgotten, and the consequences are forgotten also,—but they come, and when they come, are fearful indeed.

But to trace the evil from its source in Ireland. The half-done work, of the half-fed labourer, entails its loss upon the farmer. He knows it, perhaps, but the custom of the country makes him fearful of a change, and then, to attempt it, requires immediate money; so the custom continues, because he rarely possesses the power to make an effort against it. His produce from this half-labour, cannot, of course, be that which anxious and willing work would have given him, and therefore his returns are not what they should be. He in fact receives half-work, and perhaps but half the crop he should; and when rent-day comes, the evil commencing with the labourer reaches the landlord; for he finds his rent deficient or unable to be paid. Then the tradesman suffers, who depends on the landlord's rent for payment of his dues. The artisan next is thrown out of work, arising from the same cause; his labourer shares the master's fate: and thus, the want of energy, or, perhaps, physical incapability of the labourer of the land in Ireland, caused by the system I have explained, not alone does to him grievous and lasting evil, but that evil extends itself to the highest in the country, and sinks again, to damage, mayhap destroy, even the labourer of the town.

Still, that the peasant labourer of Ireland is not indolent, when he can get work to pay him, is yearly proved by what he undergoes in his migrations to England—the journeys he takes on foot, almost across Ireland (for he usually comes from the west)—the sufferings he bears in crossing the Channel, hundreds huddled together on the deck of the steamer—and his unceasing toil, if paid for

by the piece. In fact, he is no more nor less than other men: he seeks for payment for his labour, and when he gets it, does that labour cheerfully and happily.

Luckily for his character in this respect, the judicious determination of Government to employ only by task-work this year, has proved the facts I have stated. Last year the peasant was paid 6d., 8d., or 10d. a day for time; now he earns 1s. 4d. to 1s. 10d. a day by piece, and he wishes for no other work. He cannot, therefore, be naturally indolent, although he may have been made so by circumstances. The following paragraph, extracted from the Morning Chronicle of the 25th November, verifies the fact:—

"The large number of men employed at Clonakilty, are engaged in the embankment and drainage of the slob. Their wages average, we understand, ls. 7d. a day. They are working admirably, giving no trouble to the officers and overseers, taking task-work as choice, and performing it with skill, diligence, and effect. A fair day's wages for a fair day's work was the maxim propounded at Clonakilty, and the labourers accepted it as the golden rule of right. Let a like stimulant be applied everywhere else with equal judgment—for there is something in the mode of application—and the labourers on other works will execute their tasks with equal heartiness, ease, and satisfaction to the engineer and his subordinates."

Thus we find that "task-work" is sought for by the Irish peasant, and it in fact only accords with his natural feeling; for notwithstanding all his apparent indolence, under circumstances where he has been observed by those who knew not the causes for his apathy, he will labour longer and live upon less, than many of his brother labourers of England; and I fear not to ask the evidence of the English farmers who employ my poor countrymen yearly, to bear me out in the facts, that they work "while

the light is in the sky," and that their food is of the cheapest and meanest kind. Why? In order that they may bring back the produce of the "sweat of their brow," to share it with those they love—that they may give to others the comforts they deny to themselves—that they may preserve the roof over their little ones, and have store enough of turf to warm them through the winter. And yet, this class who rarely labour for themselves alone, are deemed to be indolent and full of crime; while in reality they possess some of the noblest attributes of nature: but they are poor! and the rich sometimes think the poor cannot have virtues like themselves.

In the Report emanating from the Devon Commission, it is stated, "that the testimony received by the Commissioners is uniform in representing the unimproved state of extensive districts, the want of employment, and the consequent poverty and hardship under which a large portion of the agricultural population continually labours. The obvious remedy for this state of things is shown to be, the providing of remunerative employment." It continues by observing, "that the agricultural labourer still suffers the greatest privations and hardships -he still is dependent on casual and precarious employment—is still badly housed, badly fed, badly clothed, and badly paid. Yet, under sufferings greater than the people of any other country in Europe," the Commissioners state, "that they cannot forbear expressing their strong sense of the patient endurance they have generally exhibited under the pressure." The Report adds, "In many districts their only food is the potato, their only beverage water, their cabins are seldom a protection against the weather, and nearly in all cases their pigs and their manure-heap constitute their only pro-Any improvement that may have taken place is attributed almost entirely to their habits of temperance

in which they have so generally persevered; and not to an increased demand for their labour.

The Report concludes by stating, "that the best directed measures of parliament will not be sufficient, unless aided by the active and steady exertions of the people of every rank and condition, in their respective spheres; but much may be accomplished by the united and vigorous exertions of the legislature and of individuals."

This Report speaks not of idleness. It does not breathe such a charge against the people; but it tells of their "want of employment;" "their consequent poverty and hardship;" that they "suffer the greatest privations;" and, " under suffering greater than the people of any country in Europe," they exhibit "patient endurance." And it is to be recollected that this admirable document has been the result of the most laborious investigation, from evidence on oath, of all classes and in all parts of Ireland; the facts elicited under close examination, and the direction and searching care of men, than whom it may be said none more competent for the purpose could have been selected; nor whose labours could have been more anxiously and zealously given. The facts brought forth also, were anterior to the evils arising from the potato disease; and it may well be conceived, from the truthful and touching description, given before that scourge set in, what are the sufferings of the people now. But I ask not credence for the facts without proof. I give from one of the leading morning papers of London (published 4th December) "a plain, unvarnished tale," which tells most truthfully of the appalling misery of my unhappy countrymen, and "their meek submission to the will of God:"-

STATE OF THE CONNAUGHT PEASANTRY.

"GALWAY, Nov. 29th .- The severity of the weather for

the last week has added much to the sufferings of our poor people. Yesterday some snow fell, followed by a cutting wind from the north, and the night was sharp and frosty. It is hard for

'Unfed sides, and loop'd and window'd raggedness,'

to encounter such a biting season. In one respect, however, they are better provided than they were last winter firing is more abundant and of a better quality; but there are many families who are without it, and the clothing of all is scanty and threadbare. Without means to procure needful food, all hope of being able to purchase the usual sparing additions to their wardrobe has long been given up. Even on Sundays old clothes are patched up to serve instead of new, and the miserable appearance of the country is greatly aggravated by this evidence of its poverty.

"In the meantime the promised public works are delayed in several districts, and hundreds of men are unemployed, who have no food to give their wives and children. The latter are, therefore, necessarily driven out to beg. Entire families are thus reduced to a vagrant condition; and in all directions the roads are traversed, and the doors of the farmers and gentry beset by women, manifestly strange to this wretched trade, with troops of palefaced, shivering children tottering at their heels.

"It is honourable to the characteristic humanity of our people that these poor outcasts still receive some relief from persons whose condition is not many degrees better than their own. Families, reduced themselves to short allowance, can still find two or three small potatoes, or a handful of oatmeal, to bestow upon the houseless wanderer; and though every day the dole is becoming smaller, and given more grudgingly, they will continue out of their penury to distribute much longer than the worldly prudent would

deem it consistent with duty to those who have a nearer and more sacred claim to their support. Culpable as the weakness may be, in ordinary times, which lavishes indiscriminate alms upon all who apply for it, there is something noble and affecting in the generous feeling which, in this trying season, opens the hearts of the Irish farmers and their wives (to the latter, indeed, the greater share of the merit belongs) to the destitute poor. If it were not for the extraordinary humanity of this class, numbers must have perished ere now of absolute starvation.

"Nor is the tranquil endurance of the poor unemployed labourers less surprising. No violence has been attempted, no threats held out: but still a meek submission to the will of God, and a hopeful reliance upon the gentlemen to 'do something for them,' are the prevailing sentiments among them. There is some secret pilfering of food by night, but by no means to the extent which it would be natural, and scarcely more than reasonable, to expect, where thousands are obliged to sustain life upon one scanty meal in the twenty-four hours. Heavy contributions are levied upon turnip-fields, and some sheep have been taken from the pastures and slaughtered for food; but no highway robberies or housebreakings have been committed, nor, unless the patience of the sufferers shall be exhausted by an almost indefinite postponement of the expected aid, are they disposed to have recourse to such desperate extremities. They are a good deal exasperated against some individuals who, with ample means derived from the land, have hitherto manifested no sympathy nor desire to alleviate the general calamity; but the gratitude which is shown towards others, who have come forward to assist them, appears as yet to master every bitter feeling in their minds. Up to the present time, the character of the peasuntry may almost be said to have been 'made perfect by suffering.'"—Morning Chronicle, 4th Dec., 1846.

Having now proved incontrovertibly, that the general population of Ireland are not idlers from desire, but from want of work; and, that their habitual "sufferings, borne with patient endurance," are "greater than the people of any country in Europe,"—I may ask, would it be wonderful that their crimes were great in proportion? Still, it has been shown, that those—of such a nature as subjected the convicts to death or transportation—were, in England and Wales, in one year, 237; while, in Ireland, the same year, they were but 65!—being, in England and Wales, more than double those of Ireland, in the ratio of the population of each country.

It being fact, then, that the general people of Ireland are not guilty of the misdeeds and crime laid to their charge, which is almost universally believed in England; and that the Irish peasant labourer is not idle from choice, but necessity,-will not England now, as heartily retract as she has unthinkingly condemned?-nay, will she not lend the aid of her powerful voice and assistance, to rescue from their misery these who have unquestionably suffered, and suffered deeply, by that condemnation? What has held back English capital from Ireland, where it might have fructified abundantly for the capitalist and given peaceful employment to her people? The dread of that crime which exists not! A causeless fear to encounter and change the habits and peculiarities of a people but partially civilized; who may be won to anything by kindness, while, like all uncivilized countries, they may be driven to despair by fancied insult or presumed wrong. Yet, the capital of England spreads itself all over the world-is vested in all climes-except Ireland. And is

this as at it should be? Are the bonds that bind the countries so loose, so trivial, that Ireland's weakness—her comparative poverty, give no claim upon England for counsel and help, for co-operation and capital, to lead towards proper independence, and protection from periodical want?

Ireland feels that her claims are such as to make her, in trade, as she is in war, the partner and helpmate of England:-that the honours and gains of peace, when earned by equal labour, should be shared, as are now the honours and gains of the sword; upheld by English and Irish alike without fear or distrust and in heartfelt good-fellowship:-that she should not be shut out from the advantages and blessings of peaceful labour, as the colaborateur of England, while she embarks, heart and hand, in all the dangers and horrors of bloodshed; -in short, that England, from her position, her intelligence, her businessknowledge, and her wealth, is bound as a people, and as a friend and partner in trade, to render to Ireland that aid, for mutual good, which Ireland wants, to raise her from the evils which surround her. Help in industry is what she needs-not the boon of charity; and she feels, perhaps, that her claims of consanguinity entitle her to that assistance in the way of trade and business, which the merchants of England render to each other for general good; but which has been almost invariably withheld from Ireland, because of fears for which there was no foundation. Still, her pride would make her wish that those who have wrongfully accused her, and through the influence of the wrong, held back from her the advantage of that capital which has fructified in, and enriched almost every other portion of the globe, should come to her aid now, for mutual good only. She will hope that the distrust and doubt which have so long marred mercantile and trading effort between

the countries, will soon be "facts of bye-gone days" which each will think of with regret; and that Ireland's real crimes shall cease with her prosperity, while her imaginary ones will be smiled at and no longer believed by England.

And it is to be recollected that the claims of her labouring class are now those of absolute starvation, arising from a calamity over which they had no control, and which may again visit them, if they be not aided and put into the right path for their future maintenance and good. coin which paid them for their labour of the last year, and which was to be their support until the next-the potato-(as perfectly the labour coin of Ireland as gold is that of England,) has vanished as if it never had existed; and, according to the present custom of the country, the labourers of Ireland are as thoroughly without the means of existence as the labourers of England would be, if by any fatality their wages for a year were not forthcoming by their employers. The farmer also cannot, in the majority of cases, aid the labourer, because he suffers almost equally. He is a small holder generally\*; his labour capital, which formerly lay from season to season in the potato-pit of his labourer, is gone; the principal part of his own and family's food is gone also, and he has but his grain and trifling live-stock, which barely paid his rent in former years, to meet all the demands and evils of the present. In short, it may be received as an unquestionable fact, that the money value of the potato coin, by which the land was cultivated, (now totally lost,) is at the lowest possible calculation above twelve and a half millions of money! and this is at the rate of but two pence per day

<sup>\*</sup> There are 563,235 farms in Ireland, from five to fifteen acres; and 79,000 under thirty acres.

for one year to the 4,200,000 people, which the government returns have proved, exist upon the potato solely; not to speak at all of the quantity consumed by all other classes in the country, but merely of that which actually represented gold. But, further, this twelve and a half millions of the representative of money, is considerably more than double the whole amount, which the present owners of property in Ireland-the landlords-enjoy yearly; the remainder of the rental of the country being incumbered and payable to others, who care not for the labourer, and forget that his labour is that which yields them payment of their claims; consequently it may truly be said that there is not a parallel in the history of civilized countries for the position in which the Irish peasant, the farmer, and the landlord, are now placed; arising originally and solely from the mistaken and unjustifiable custom of trucking the potato for labour; one, however, handed down by the usage of ages, and which can be alone likened to the "truck system" of England, abolished not only by the legislature, but by the public voice, as degrading and demoralizing in its operation.

I feel, then, that I plead for the peasant not in vain, although no pen can hope to describe his sufferings at the present hour. The infant dies for want of maternal nutriment, and the mother, as she seeks for means to place it in its grave, sinks, and both lie dead together. The father labours at his task to feed some six or eight, his little ones, and stints himself in food to give it them, till all his strength is gone, and he dies too. In hope to give them life, he yields his own, yet leaves them to starvation. Wives barely eat, that they may keep food to give their husbands, which still is not enough; and in noble rivalry of endurance and love, both die, and fill one grave.

But greater evils come than even these. Cold and frost

prevail, and life, held hanging on a single meal per day, will snap like ice itself. Despair then seizing on the multitude, death upon death will follow, without an effort, even from themselves, to prevent it. The people firmly believe there is "a curse upon the land." They have lived for years in hope of something, they knew not what; but now the heart has sickened till they despair, and the good in principle will calmly droop and die, believing it is the will of God that they should do so!

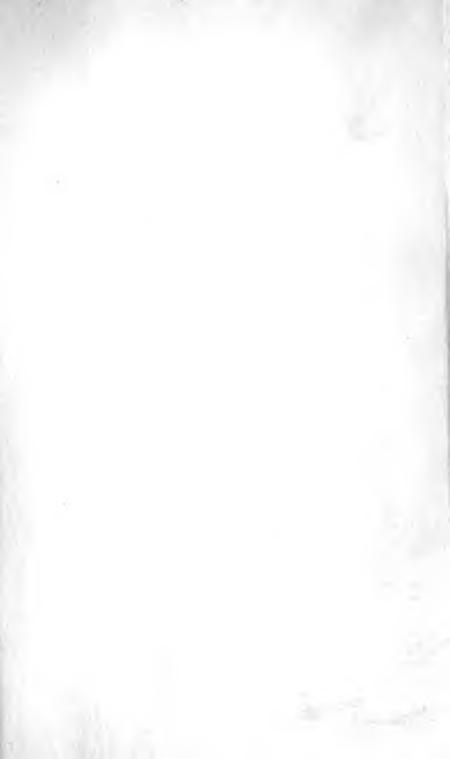
But although this feeling actuates and sways the Irish peasant generally, it is not less the duty of those who know that they are bound "to use the means," and teach its use to others, now to come forward to help the starving in their need, and show them how to "rise and save themselves;" and I doubt not that England will willingly stretch forth her hand to aid Ireland during her misery, when the cause and its remedy are known, and that she is no longer believed to be "steeped in crime," as has been stated. England will help and encourage her to rescue herself by honest labour from her wretchedness. She will assist to teach how it can be done; and if once the work be set on foot to that extent which will prove the good is more than merely "promise," the Irish peasant will soon be known, not as the "careless indolent, reckless of good or evil," but the contented, grateful, and willing labourer; receiving his blessings with thankfulness, in the self-same spirit that he has borne his miseries with "patient endurance, and under sufferings greater than the people of any other country in Europe."

JASPER W. ROGERS.

Nottingham-street, Dublin. 1st January, 1847.









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