

# The Irish Textile Journal,

WITH WHICH IS INCORPORATED

## The Belfast Linen Trade Circular.

[REGISTERED.]

ESTABLISHED 1852.

NEW SERIES, 1886.

Vol. VII. Belfast, January 15th, 1892. No. 73.

### Contents.

	Page		Page
The World's Fair in Chicago in 1893 ..	1	Monthly Trade Reports—	
Progress in Belfast ..	1	English ..	8
Dr. Rutherford on the War Path ..	1	Scotch ..	10
National Education ..	4	Continental ..	10
Correspondence—		United States Market ..	10
Notes on Southern Industries ..	5	Trade in Montreal ..	11
Belfast Linen Trade Report ..	6	Agricultural Education in Ireland ..	11
Board of Trade Returns ..	7	Fibrelia ..	12
Monthly Trade Reports—		Chemicals and Dyes ..	12
Irish ..	8	Selected List of Applications for Patents ..	12

### Notices.

Correspondence and items of interest bearing upon the Textile Industries, Technical Education, or other questions treated in this Journal, are solicited. Market reports, or notes respecting the position and prospects of our Irish industries, will be specially acceptable. Correspondents should write briefly and on one side of the paper. Foreign readers are invited to send reports, and to point out any facilities which may exist for promoting the interests of Irish manufacturers.

The *Irish Textile Journal* is published on the 15th of each month. Yearly subscription, including postage, 11/6. Subscriptions payable in advance. Free sample copy sent to any address. Advertisers will find the Journal an excellent medium for announcements suitable to its pages. Terms may be known on application.

All remittances to be made payable to the Proprietor, F. W. SMITH, 7, Donegall Square East, Belfast.

The *Linen Market*, published every Saturday, at the above address, deals exclusively with the Irish linen trade in all its branches. Annual subscription, £1 ls. The *Irish Textile Journal* and *The Linen Market*, if ordered at the same time, will be supplied by post for £1 4s., or if within the City delivery for £1 2s. 6d., per annum.

The *Home and Foreign Linen Trade Directory* is now in preparation.



### The World's Fair in Chicago in 1893.



HE work in connection with this gigantic undertaking is making rapid progress, and it promises, in point of extent and importance, to fulfil the most sanguine expectations formed of its success. We would remind intending exhibitors that all applications for space must be made upon forms to be obtained from the Secretary of the Commission, at their Offices, Society of Arts, John Street, Adelphi, London, and that the applications must be sent in not later than the 29th of next month (February), addressed to the Secretary as above.

A large number of lithographic views of the several buildings which will form the Exhibition have been published by the Executive Committee. We have to thank Mr. R. S. M'Cormick, of 72, Victoria Street, London, Official Representative and Resident Commissioner for the United Kingdom, for supplying us with the "Lagoon View"—of a portion of the buildings—which we present to our subscribers.

### Progress in Belfast.

The City continues to grow in numbers and wealth from year to year, the population by the Census of last year being 255,896 for the municipal area, to which 4,000 more might now be added. Employment in our various trades and industries was steady and regular during the past year, and difficulty was frequently experienced in getting a sufficient number of workers, females especially, for the factories and warerooms. The following statistics show the increased valuation of property since the 1st of last year, and for the past 30 years.

	1890.	1891.
New buildings erected ..	1,996	2,215
Increase in valuation ..	£21,225	£27,176
Total valuation of City on 1st January, 1891 ..	£689,855	
Do. do. 1892 ..	£717,077	
Do. do. 1862 ..	£279,087	
Increase in valuation in 30 years ..	£437,990	
New buildings erected in 30 years ..	39,259	

### Dr. Rutherford on the War Path.



ANOTHER pamphlet by R. C. Rutherford on *Woollen or Linen*, numbered II., as though there may be III., IV., V. or VI. to follow, has lately been issued in New York. We looked upon its predecessor as a compliment, much to Dr. Rutherford's annoyance. He compares his first effort to an avalanche, and writes complacently of its overwhelming testimony; and yet there was no damage done—nobody was hurt. But if 29 pages from Dr. Rutherford's pen are to be thought equal to an

avalanche, what convulsion of Nature will adequately represent this second pamphlet of 48?—nothing less than an earthquake, surely. Still, so far as can be seen, there has been no disaster. Belfast still stands where it did, and at the moment of writing there is

every reason for hoping that the next number of *The Irish Textile Journal* will be sent out as usual. And we shall continue to accept each succeeding number of *Woollen or Linen* pamphlets as a fresh compliment, especially if they resemble the two with which we have already been favoured, and particularly if the arithmetical progression of the sheets is kept up. No. III. would then contain between 80 and 90 pages, and if those were as empty of serious argument as these

48 in No. II., and as full of pedantic scruples about grammar and still more pretentious quibblings over the construction of sentences, that overwhelming catastrophe would have to be again postponed. But there is occasion to anticipate that no further remarks will be addressed to the public by Dr. Rutherford, as will be seen presently.

Before going further, it must be said that Dr. Rutherford sometimes hits below the belt, and, moreover, that he has not the candour to acknowledge it. That he wrote of a *Mr. Milton* is admitted to be due to his "ignorance of English distinctions" and "an obviously accidental displacement" of the "little article a," which is not usually called an article at all, but a demonstrative adjective. But he commits a more serious offence in continued reference to Mr. Milton as nothing more than a hospital surgeon, and repeated assertions that he only advocates linen for bandages and dressings. It is true that Dr. Rutherford writes elsewhere of Mr. Milton's "attempt to persuade the public to substitute linen for woollen underwear," but this inconsistency does not excuse continuous discourtesy. Dr. Rutherford's controversial methods are, to say the least, peculiar. He twists a quotation, within quotation marks, into an admission of delinquency; he sneers at a disclaimer which he has first pretended to accept, and evidently would like to avow a disbelief in the explanation. He does not hesitate to repeat statements which have been specifically denied, while his powers of assumption and suppression are wonderful. It will be necessary to ask the indulgence of the reader for entering upon two or three questions partly personal. But with an opponent whose mode of procedure is so remarkable, it is necessary to be as explicit and precise as though we were preparing a legal deed or a builder's specification. It must be remembered, too, that this pamphlet has most likely been printed in large numbers for trade purposes. To leave it unanswered now would probably involve the publication of *Woollen or Linen*, No. III., with a blare of triumph over an assumed inability to meet Dr. Rutherford's manifold accusations. Reply becomes imperative.

### Had or Have?

First, as to the charge of having advised linen manufacturers to trade upon the gullibility of the public, which is again brought forward. The paragraph which is paraded once and again as evidence that we have advocated deceit and dishonesty is this—

If constant dropping wears away stones, dogged advertising may invest the bread-crumbs pill with amazing virtue, and a glance at the newspapers at any time will show how empty must be the merits of many patent medicines which profess to cure the most varied disorders in the most haphazard constitutions. It would be possible, by judicious expenditure and vigilant pains, to make the public believe in linen, and buy and wear it, though flax had no more virtue than any other fibre, and flaxen fabrics no more reputation than druggist or house-flannel.

We went on to show that on the score of comfort, economy, cleanliness, and health, linen has many merits which entitle it to the support of the public, adding—what everybody who knows the

extensive use of linen as napery would understand—that it has already a good name throughout the length and breadth of the land, and a firm position in the esteem of every true housewife. Here are Dr. Rutherford's latest remarks upon the passage:—

If here is not the clearest intimation that the public can be made to "believe in linen, and buy and wear it" through the same processes by which the "bread-crumbs pill" may be invested "with amazing virtue," both turning on the gullibility of the public, we do not understand the meaning of the words. As the public can be gulled into believing in the amazing virtues of bread-crumbs pills, so by the same token—"dogged advertising," etc., they can be made to "believe in linen" though it have no more virtue than druggot, or shoddy, or bread-crumbs pills. In the face of these words and facts, will our editor try to purge himself of the opprobrium of having advised the linen manufacturers to avail themselves of the public gullibility, for the advancement of the linen trade?

Blessings on such innocence as can either be unaware that worthless articles have been palmed off upon the public by strenuous advertising, or would conclude that because an article is extensively advertised the public is being imposed upon! But when Dr. Rutherford's comments are carefully read, a slight deviation from the original text may be noticed. It is only the substitution of one tense for another, so as to make a suppositious case into an actual and real one, and there you have a charge of foisting a bogus article upon a gullible public all complete. This is not misrepresentation—according to Dr. Rutherford. It is only making the best of a bad case in the course of a magazine article. But Dr. Rutherford, with all his inflated zeal for the integrity and proper use of the English language, must surely have known, if not at first, certainly after the reply to him in July, what a false construction he was putting (and has again put) upon the paragraph.

#### A Wool-witted Accusation.

Now for a boot upon the other leg. We are charged with all sorts of literary sins because of the following sentence:—

Dr. Rutherford goes further and maintains that it [wool] is the one fibre designed by Providence for the clothing of man—"providentially designed for the clothing of an animal body." . . . Why wool alone should be thought to have the approbation of Providence is hard to understand, unless it is that other animal substances—fur and feathers and skins, with non-vegetable silk—are not adapted to the requirements of the one and only system.

It is wrong, says Dr. Rutherford—it is a "trick," a "mutilated record." With his usual delicacy and civility he insinuates that another "correspondent" will have to be found for a scapegoat "to bear away the reproach of this iniquity." What he wrote was that "it is no wonder that Count Rumford spoke of wool and hair and fur as being providentially designed for the clothing of an animal body;" and in a fine fit of dramatic indignation he protests against any "one fibre" or "wool alone" theory being fathered upon him. Serious, isn't it? On the next page he writes of an argument being one person's by origination and another's by adoption; so that, on the principle that sauce for the Belfast goose is sauce for the New York gander, we may take it for granted that Dr. Rutherford accepts Count Rumford's doctrine as to the providential provision of wool, hair, and fur only for human clothing. Why intermediate rather than first principles should be adopted by either Count or Doctor is not explained. It may be remembered that coats of skins were the garments divinely fashioned for the use of our first parents, although the guilty couple in the garden of Eden had already incurred the condemnation of Dr. Jaeger and all his true followers by making for themselves vegetable aprons. Milton does not doubt that the leaves of the banyan tree were chosen for this purpose; but there is one of Dr. Rutherford's authorities who knows all about pre-historic textiles. We may trust Dr. Bell to tell us what Adam and Eve actually wore, and Dr. Rutherford, in the unavoidable absence of Count Rumford, will perhaps explain what Providence intended cotton, flax, jute, and numberless other plant fibres to be used for. Taking man rather as "a little lower than the angels" than as on a level with the brute creation, we do not believe that he was confined to wool and hair and fur for clothing materials, and Dr. Lahmann shows clearly enough that the "animal" analogies of Jaeger are not only inconclusive but unsound. But what says Dr. Rutherford of hair and fur? Not a word anywhere in favour or in defence of either of them. More than that, he wrote, or said, on one occasion—

It is a very easy matter to demonstrate to anyone of average intelligence the validity of its [the Jaeger theory's] fundamental principle, namely—that wool [only wool], a material provided by nature for the clothing of an animal body, is the most suitable material for the clothing of the animal man.

He repeats, in another place, that this proposition is "absolutely impregnable," and adds that

To one that believes in the wisdom of Providence, or in the aptness of Nature to adapt her means to her ends, there is no need of argument to support this foundation fact of the Jaeger system.

There is nothing retail about this proposition; it is all wholesale. Jaeger declares for his version of the foundation fact of his system—

Animal wool, which Nature has created to clothe the animal body, is the "survival of the fittest" clothing material.

Yet we are charged with untruth, and iniquity, and what not, for stating that Dr. Rutherford maintains that wool is the one fibre designed by Providence for the clothing of man. Such are the virtues of bunkum! The Jaeger prescription, as set forth in *Health Culture* (price one shilling; new abridged edition, 192 pp., price sixpence), is made up of wool, 49 parts; camel-hair, mainly for bedding and linings, 1 part; and the remainder is a mixture of abuse of all vegetable fibres, flax especially, in all and every particular, and physiological puerilities about salutary exhalations, warmth-causing odours, fatigue matter, the physical source of the emotions, and such like. Dr. Rutherford does not like these things, any more than he likes the Jaeger method of deodorising bedding, or the Jaeger toleration of any dirt not apparent or malodorous. He would rather write 48 round-about pages than stand surety or spokesman for the ridiculous statements in *Health Culture*. He sees how thin a plank there is between the Jaeger experiments and the Jaeger conclusions, and irredeemable absurdity; and would rather argue as to whether a note of interrogation is in place at the end of a question. But he has to "face the music," and so, first opening a door wide behind him for convenience of escape, he will "accept as defensible, in the sense and to the extent advocated by Dr. Jaeger, more of these propositions than our editor, on his reputation for scientific intelligence, dare deny." This, it will be noticed, still leaves him freedom of choice, but there is one of Dr. Jaeger's tests too nonsensical for him to swallow, and no wonder! Dr. Jaeger tried his running powers in three different suits of clothing, and found that in the brown suit, which he tried ten times, the minimum distance was 800 metres, and the maximum 2,400 metres. On the three occasions on which he tested the indigo suit he could proceed no further than 800 metres, and in the logwood suit he was completely exhausted at 500 metres. What the brown suit was dyed with is not stated, but the other two were certainly sinfully vegetable in colouring, and, like curtains or blinds of vegetable fibre and books printed upon vegetable paper, could only come under the major condemnation of all true woollenites. But, returning to the fresh charge which Dr. Rutherford has brought against us, it is probable that he will take shelter behind the camel-hair fraction of the Jaeger system, making no mention of fur, which was anathematised in the *Times* by the Jaeger Company a few years ago, when the question of overcoats was being discussed; or, as is quite likely, he may ignore the matter altogether. So Dr. Rutherford, who is "with the Dr. Jaeger Company" by one account, or "the scientist attached to the Jaeger Company," as another states, ignores Mr. Milton's explicit statement that he has no pecuniary or personal interest whatever at stake in Belfast, and, indeed, while he would not "insinuate that the Doctor is a stockholder in the Belfast mills," still holds by the opinion that he wrote "more out of solicitude for [his] friends of the Belfast linen trade than for the public benefit," and he can still say that the Egyptians, with their trade in fine linen to protect and their hatred of shepherds to extenuate, were "not less concerned for the product of their looms than Mr. Milton seems to be for the outputs of the Belfast mills." Said we not truly that Dr. Rutherford's methods are peculiar? He ignores the express declaration of Sir Erasmus Wilson, late President of the Royal College of Surgeons, that the roundness and pliability of the fibre of linen give a smoothness and softness to its tissue which adapt it peculiarly as a soft and agreeable covering to be worn next the skin. There is no room to sneer at Sir Erasmus Wilson's position or attainments, no chance of cavilling about his opinion; and so it is quietly disregarded. So Dr. Rutherford glosses over the inconvenient circumstance that wool is generally considered to be a common vehicle of infection, more liable than other fibres to carry contagion. At this point he becomes mightily jocose upon the subject of rags, changing a conjunction in a phrase of ours, so as to make merry about the qualities of linen, and might be thought to know all about the plague of leprosy in a garment which has puzzled so many students of the Pentateuch. But by these means the serious impu-

tation upon "the most suitable material for the clothing of the animal man" is carefully avoided.

#### Peculiar!

May we be allowed to give one more illustration of Dr. Rutherford's methods. Mr. Milton had occasion to complain that he was represented as having advocated the general adoption of linen shirts and drawers because Irish linen is a good dressing for nettlerash. Nothing of the kind, says Dr. Rutherford; "we" never said that Mr. Milton drew any such inference. We have already shown that it sometimes suits Dr. Rutherford to state that Mr. Milton attempted "to persuade the public to substitute linen for woollen underwear," at others to assume that "the argument and the evidence offered by him . . . bear solely upon the point of its efficacy in relation to diseases of the skin, or a predisposition to them." But when Mr. Milton protests against this inference, Dr. Rutherford distinctly denies having made it. He says—

Our language is: "But for Dr. Purdon and Mr. Milton to infer," etc. "For" here has the force only of the conditional *if*. Furthermore, "no infinitive in English ever expresses an affirmation." And so it will be seen that Dr. Purdon and Senior Surgeon Milton were not "told" what the latter says they were.

Here, at any rate, is a well-defined issue. *Go to, let us split hairs*, is Dr. Rutherford's usual invitation when he gets into a tight corner. But at this point he puts on an air of injured innocence, and with a convenient "etc." would seem to be confident and contented enough. However, let us have the whole paragraph as Dr. Rutherford is responsible for it—

Undoubtedly Surgeon Milton and Dr. Purdon are good authorities respecting the treatment of diseases of the skin; but for them to infer that, because Irish linen is a good dressing for nettlerash, everybody ought to wear linen shirts and drawers, is about as rational as it would be to insist that the human race should be clothed in porous plaster underclothing because a porous plaster is good for rheumatism.

We would ask Dr. Rutherford what he intended to convey by this sentence. We should like to know what "anyone of average intelligence" would understand by it. Then what do we conclude from Dr. Rutherford's defence in the November *Sanitarian*. Now, as regards the grammatical interpretation of this crucial sentence, it is quite right that an infinitive names an action simply, and therefore "no infinitive in English ever expresses an affirmation." But the infinitive phrase here is made the subject of a sentence of which the predicate is "is about as rational." Thus the predicate of the sentence (the part on which the force must hang) is in the indicative mood, and certainly asserts that Surgeon Milton did infer the statement contained in the foregoing subordinate substantive sentence. Had the predicate been "*would be* about as rational," then it might be questioned whether the whole sentence intended to place the onus of inference on Mr. Milton; but as the predicate is "*is* about as rational," Surgeon Milton is decidedly represented as making the inference. There can be no doubt about the verdict in this matter, and Dr. Rutherford has pronounced sentence upon himself by anticipation. He says—

This may seem to be a small matter, but to Dr. Milton it was large enough to hang a question of veracity upon; and that is no small matter to us. When once convicted of an intentional misstatement, we shall cease to address the public.

This is why we do not expect to see *Woollen or Linen*, No. III. If two and two make four, we shall hear no more from Dr. Rutherford.

#### A Sheepish Argument.

When wool is held to be specially provided by Providence for the clothing of man, it naturally becomes flat blasphemy to write slightly of the sheep. But while it is easy to give from the Scriptures passage after passage relating to sheep and wool, not all the multi-quotation power of a concordance can prove that the sheep has ever been anything but helpless, liable to go astray, always requiring a shepherd, and, in short, the most dependent and defenceless, as well as the most meek and patient and submissive of all animals in the service of man. What is the use of arguing about that which is within the knowledge of any schoolboy? What, too, is the use of insisting that sheep were—not the "companions of man," but valuable property furnishing food and raiment? Who denies it? But the fact remains that in Palestine wool played second fiddle to flax, as it generally has where flax could be procured. Sheep were the readiest resource of nomadic and pastoral tribes; flax was cultivated and sought after in preference as soon as progress reached the point of settled habitation. Wool was ordinary; flax, a luxury and a considerable

article of commerce, was cultivated and sought after in preference as soon as another stage in civilisation was reached and man enjoyed a settled habitation. In early days it was often a case of Hobson's choice in clothing—wool or none; but when either agriculture or commerce made linen available, vegetable fibres took the first place. It is more than likely that "*purple and fine linen*," the accepted synonym for indulgence in dress, did not always represent the use of two fibres, but was sometimes, at least, an all-linen garb. James Yates, treating of "the progressive use of linen among the Greeks and Romans," says that

the Emperor Alexander Severus, as we learn from the following passage of his Life, written by Ælius Lampridius, was a great admirer of good linen, and preferred that which was plain to such as had flowers or feathers interwoven, as practised in Egypt and the neighbouring countries. *He took great delight in good linen, and preferred it plain.* "If," said he, "*linen clothes are made of that material in order that they may not be at all rough, why mix purple with them?*" But to interweave gold in linen he considered madness, because this made it rigid in addition to its roughness. The following passage of the Life of the Emperor Carinus by Flavius Vospiscus is remarkable as proving the value attached by the Romans of that age to the linen imported from Egypt and Phoenice, especially to the transparent and flowered varieties. *Why should I mention the linen cloths brought from Egypt, or those imported from Tyre and Sidon, which are so thin as to be transparent, which glow with purple, or are prized on account of their laboured embroidery.*

Here is linen linked with comfort and luxury, and other records establish beyond dispute not only the high esteem in which linen was held, but also the considerable and extensive trade carried on with it, while the widespread incorporation of the name of linen in different languages gives philological proof of the general use of the good old fabric. And yet Dr. Bell could "originate" a statement—which has neither been withdrawn nor substantiated, only suppressed—to the effect that

Royal robes, head-dresses, and mantles of the finest wool, and tent-coverings, carpets, and carpets of heavier texture, were exclusively manufactured of wool by the Asiatics in such profusion that for many ages flannel appears to have been the only textile in use.

Wool in early India is an unknown quantity, but cotton has been made up and worn there from time immemorial, while China and Central Asia have spun and woven silk to as remote a period. A stated period of deprivation of pen and ink should be the punishment for such unwarrantable nonsense as this about wool and "flannel."

#### A Few Questions.

It is complained that we have not paid sufficient respect to the "authorities" which occupied a dozen pages or more of the first number of *Woollen or Linen*, and it is now stated that several of them are

men who have scientifically experimented with these materials, or have worn linen or cotton underclothing nearly all their lives, some of them till as late as about five years ago, when the Jaeger goods were first introduced into this country [the United States].

This is all well enough, but it is all new. The nearest approach to any practical research which appears in any of these testimonies is that of a man who found that his previous predilection for Jaeger fabrics ended in an empty pocket, after an hour and a-half spent in a Jaeger store. This is likely enough, but these are not the lines on which investigation should run. What were these scientific experiments? On what points did research turn? What were the results? Why were not particulars given before? Why are they not given now? As to the witnesses, three of them are not experts, but editors of religious papers. We fail still to see that conductors of religious papers, as conductors of religious papers, are the most competent men to decide upon the merits of textile fibres or fabrics. One of the "authorities" is an anonymous letter writer to a New York daily paper, and another a tradesman who sends a testimonial to the Jaeger Company. One other is Dr. Bell, editor of the *Sanitarian*, who writes so thoughtlessly about the history of textiles, and there are two besides from medical men, only one of whom holds a public position, while even his conclusions cannot be accepted, if special practice is, as in Mr. Milton's case, considered to invalidate his judgment, since he is a Professor of Diseases of the Throat. What is there in these "authorities" to set against the opinions in favour of linen from skin specialists, who, whatever may be inferred to the contrary, must be best qualified to speak upon what is best for the skin in health as well as in disease; and what is there in all the dozen pages or more that will weigh against the conclusion of Sir Erasmus Wilson, to which we once more invite attention?

#### Woolenite Orthodoxy.

One authority quoted with approval in the first pamphlet is the Director of the Hygienic Institute at Munich, Professor Pettenkofer. But the Professor, not being a bigot, and willing to acknowledge that he has changed his opinions—which, as has been pointed out, is but to plead that he is wiser to-day than he was the day before—has in the meanwhile, as our readers are aware, let the public know that linen has found grace in his sight. He adopts the deductions of Rubner as to the absorbent power of flax, based upon actual tests with socks of linen and woolen worn alternately by several persons, and states that “the capacity of conducting heat is almost the same for the substance of wool,” that is, for animal fibres and for linen. Forthwith, Professor Pettenkofer is deposed from his position as an authority upon the subject, and Rubner's experiments with the feet are set down as “tomfoolery.” Upon this matter we may have something more to write at another time, now that the decks are cleared of this defensive matter; but if there is any reason why experiments should not be carried out, as regards bodily clothing, upon human bodies instead of metal cylinders, or why modern investigations should be rejected in favour of decisions a century old, we should like to know it. The experience of Pfarrer Kneipp, extending over a number of years and thousands of cases, covering not merely skin diseases but well nigh “all the ills that flesh is heir to,” and bearing not merely upon the recovery but the maintenance of health, is the best of evidence in favour of the sanitary and salutary virtues of linen. We stick to our text. We hold a brief on behalf of linen for underclothing, and we not only hope but confidently expect to carry our case. Surely, if slowly, public opinion is being won over to the time-honoured and wholesome practice of wearing linen next the skin, and one good and sufficient indication of the change is the fact that it is found expedient, if not necessary, to publish Jaeger pamphlets of 29 and 48 pages in support of wool.

#### National Education.



HAVING been for years helplessly and hopelessly behind our Continental neighbours in the matter of Technical Instruction, England has at last really begun to move in the right direction. The passing of the Technical Instruction Acts of 1889-91, together with the allocation of large sums of money to the County Councils and Borough Authorities, have made the pressing

forward of this most necessary portion of National Education possible. In the present paper we intend to give a rapid summary of what has been done in England, together with a few general remarks on the subject. Premising that far as England still is behind other countries in the direction of this practical training of her artisans, Ireland is as far again behind her. With Ireland for the moment we have nothing to do, our task lying in the endeavour to see what has been done elsewhere, and thus to lay a foundation for pointing out what might be done at home. For our general purpose the Annual Report of the National Association for the Promotion of Technical and Secondary Education will be found most useful. When, under the Local Taxation Duties Act, a large sum of money was set free and allocated to the Local Authorities, an effort was made to induce the latter to appropriate it to educational purposes, and not to the mere reduction of the local rates. This effort has so far been fairly successful. By the beginning of December, 1890, educational grants had been voted out of these funds by the Committees of nineteen County Councils. Twenty-two counties and sixteen boroughs were still considering the matter, and only one Local Authority—London—had decided to appropriate the money in reduction of the rates. There was at the time, amongst others, one obstacle towards the progress of this work—the doubtful character of the permanency of the grant. This doubt was to a great extent removed by the answer of the Chancellor of the Exchequer to a question put by Lord Hartington. Mr. Goschen, while not in a position to give any official assurance, stated that “if County Councils set themselves heartily to work, as in many places they appear to be doing, to utilise the grants for important educational purposes, it would probably be difficult for any minister to persuade Parliament to divert them, even if he himself desired to do so.” On this a very great impetus was given to the movement, and the permanency of the fund being practically assured, County Councils settled down to

draft schemes for the organisation of Technical Education. Difficulties naturally arose; the Act was found defective; and as the end of the financial year approached, most schemes were still uncompleted, and there was a possibility that the unexpended balance of the grants would lapse. These again were in turn overcome, and at the end of June last there were twenty-seven English and eleven Welsh County Councils devoting all the grants to educational purposes. Of boroughs, thirty-three English and two Welsh were in the same position. Thirteen had only given part of the grant, and in two the money had gone to reduce the rates. Besides this, there were at the same period seventy-two Local Authorities giving rate-aid to Technical Education under the Acts. In Scotland, things were not so favourable; the progress had been much slower, and may be accounted for by the fact that there the previous grant of the Probate Duty, which in England had gone to the relief of the rates, had been applied to the partial freeing of Elementary Schools. Secondly, the Technical Schools Act is in Scotland a narrower measure than the English Act; however, notwithstanding all, progress has been made and the work is still being pushed on. In Wales, as already partly noted, the advance has been rapid. In almost all the counties the whole of the grants have been given to the furtherance of either Intermediate or Technical Schools. The halfpenny rate under the Act has also been put in force by the County Councils, and, in addition, further grants under the Technical Instruction Act have been made by some counties for Agricultural and Dairy teaching. Thus Wales has not been backward in providing funds for the inauguration of the new departure she is about to take in the organisation of her Secondary Instruction.

Turning now to review some of the schemes, etc., set on foot, we may continue for the present with Wales. Here seven schemes have already been sent in to the Charity Commissioners, and most of the others are well advanced. It is estimated that some seventy or eighty new schools, or existing Endowed Schools, will be brought under the Act, of which far the largest number will be new. They will for the most part be day schools with low fees, and many will be for both boys and girls. The direction will lie in a local governing body, with, in most counties, a County Governing Body having a full representation on the County Council. It is expected that from the arrangements now being made under the powers conferred by the Act the University Colleges will derive a great deal of benefit, and that the gap existing in the National Education of Wales will be filled up. In England, in Manchester, the funds available are £22,000 per annum. A Special Committee of the Corporation is engaged in considering the best methods of meeting the many claims on the money. As a tentative measure, some £4,000 were called up and allocated to the Technical School, the School Board, and the School of Art. In June and July last, a deputation from the Technical School visited some Continental and English Technical Schools, and drew up an elaborate report, from which extracts have already appeared in these columns, and to which we shall have occasion to refer presently. The Manchester Technical School is at present engaged in elaborating plans for a larger and better equipped building, to be devoted chiefly to the engineering, chemical, and textile trades; and it is hoped that the Corporation will contribute towards the erection and maintenance of it. In Nottingham, the whole of the funds placed by the Government at the disposal of the Town Council have been devoted to Technical Instruction. In Leeds, a scheme has been drawn up and strong representations made to the County Council, whose final decision is now being awaited. At Southampton, the Town Council, after a long and careful inquiry, have decided to allot the grant in portions to the Hartley Institution, the Taunton Trade School, the Committee for the University Extension Lectures, and the School of Art. In consequence of this there will shortly be an extensive increase of highly qualified Technical teachers to the staff of the Hartley Institution.

Scotland is also pressing forward. In Dundee, we find that during the ten years 1879-89 the number of individuals receiving instruction in Drawing in Elementary Day Schools had increased from 859 to 8,509; and the number receiving instruction in the Dundee School of Art and two Art Classes had gone up from 1,056 to 2,225 during the same period. This gives us a very fair idea of what has been and is being done across the channel in this all-important matter of Industrial Education. The money set free by the Local Taxation Act is in very few cases being frittered away in the reduction of the rates, but is being almost everywhere devoted to the practical and useful purposes of Secondary and Technical Instruction.

[Continued on page 7.]

## The Belfast Linen Trade Report.

DRAWN UP BY THE LINEN TRADE BOARD, APPOINTED UNDER THE SANCTION OF THE BELFAST CHAMBER OF COMMERCE.

**D**URING the latter half of last month, and down to the present time, a quiet tone has characterised the market, and little improvement can be reported in any department of trade. The foggy weather at Christmas and the wide-spread influenza epidemic have doubtless largely retarded the distribution of textile goods throughout the home trade. Though spinners hold firmly to the advanced prices obtained for yarns—owing to the increased cost of flax—manufacturers complain of the great difficulty of getting prices commensurate with the present cost of production.

### FLAX.

Supplies of flax at the Irish markets are rapidly falling off, and season will soon be over. A great deal of flax has been bought this season at the scutch mills, so that supplies at open market have been smaller than usual. Coarse flax has met with a slow sale of late, but any good medium to fine sorts offering have brought top rates in all cases. Subjoined are correspondents' reports since last issue.

*December 19th.*—BALLYMENA—20 tons of milled, prices from 4/6 to 7/6 per stone; the greater proportion was of medium quality; market fairly attended; demand not so active, and part unsold. *21st.*—MONAGHAN—9 tons of milled, varying in price from 5/- to 8/-, and 5 tons of hand-scutched, which sold from 3/9 to 5/9; quality of a mixed description; usual attendance. *23rd.*—LISNASKEA—2 tons of milled, prices from 4/2 to 8/-; bulk of inferior quality; poor attendance of buyers, and demand slow. *28th.*—LIMAVADY—3 tons of milled, prices ranging from 45/- to 60/-; mostly of common description; any picked lots eagerly sought after, but coarse slow of sale. *29th.*—ARMAGH—2 tons of milled, prices from 5/6 to 8/-. *30th.*—RATHERFRILAND—10 tons of milled, running in price from 4/9 to 6/6. *31st.*—MAGHERAFELT—25 tons of milled, prices from 5/6 to 8/7½d. per stone; all offered of fair quality; very active demand, and all flax bought up. *NEWRY*—7½ tons of milled, prices from 5/- to 7/6; of very poor quality; without change in prices. *January 1st.*—BELFAST—4 tons of milled, varying from 5/6 to 7/3 in price. *COOTEHILL*—10 tons of milled, which sold at from 5/6 to 7/9, and 2 tons of hand-scutched at from 4/- to 5/1; well attended by buyers; flax offered mostly inferior, with the exception of a few fine lots; prices firm. *2nd.*—BALLIBAY—5 tons of milled, prices from 5/6 to 8/- per stone, and 1 ton of hand-scutched running from 5/- to 6/3. *BALLYMENA*—10 tons of milled, prices ranging from 4/9 to 7/9 per stone; of medium quality; large attendance of buyers; demand active; prices firm. *COOKSTOWN*—15 tons of milled, prices from 5/3 to 9/6. *5th.*—ARMAGH—2 tons of milled, prices from 5/6 to 7/6. *7th.*—BALLYMONEY—14 tons of milled, varying in price from 40/- to 65/-; chiefly medium quality; demand steady; some left unsold. *NEWRY*—4 tons of milled, prices from 4/- to 7/-. *8th.*—BELFAST—No flax offered in to-day's market. *11th.*—MONAGHAN—9 tons of milled, prices from 4/9 to 9/-, and 6 tons of hand-scutched, which sold from 3/9 to 6/-, and which was of mixed quality; usual attendance; demand quiet; prices easy.

A rough estimate of the yield of Irish flax has been made by the Flax Supply Association, from which it appears that the total quantity of the 1891 crop will be 12,335 tons, against 20,045 tons for 1890, a decrease of 7,710 tons.

### YARNS.

The general demand for some weeks past has been quiet, manufacturers not doing more than supplying their immediate requirements, whilst, on the other hand, spinners have been careless of booking ahead, pending the clearing off of contracts already placed. The export trade is fairly steady. Prices continue firm for all classes of yarns, both lines and tows, and in the finer counts of lines the tendency is still in favour of producers. Stocks of all kinds are very low in the market, and production was much curtailed by the holidays.

### BROWN POWER AND HAND-LOOM LINENS.

Orders placed for light power-loom bleaching cloth are of limited extent, buyers being unwilling to give the advanced prices required by manufacturers. Old contracts still on hand keep machinery well engaged, so that stocks on the market are very small. For medium and heavy makes, manufacturers are asking a shade more than last month. Cloth for printing and dyeing purposes, as well as dress

linens, are in moderate demand, supplies small and prices very firm. Roughs of special make are in fair request, but ordinary qualities meet with a slow sale. There has been rather more doing lately in coarse goods and drills, which had previously been in dull demand. Ballymena cloth continues in very good demand; manufacturers well cleared out of stock, and prices very firm at the advanced point of last month. County Down makes are also freely bought at late rates, and in some cases rather more money is demanded. Linen handkerchiefs, both power and hand-loom, have been dull for some time, but stocks are light on the market and rates well maintained. Cambrics, especially in the finer counts, are in somewhat better demand, and prices in favour of manufacturers. In damasks and diapers there is a steady business doing, which takes off the production, and rates are very firm.

### BLEACHED AND FINISHED LINENS.

*Home Trade.*—Continued quietness has been the prevailing feature in this branch of trade for some time past, the retail interests having been unfavourably affected by the unseasonable weather at the end of last month, as well as by the prevailing epidemic. Stock-taking has also kept many buyers out of the market.

*United States.*—Advices of late indicate a quiet season's trade at the other side, the Christmas business being said to be of a disappointing nature, mainly owing to the wet and exceptionally mild weather. Shipping houses here are still fairly engaged in the execution of orders for spring account. Shipments of piece goods from the United Kingdom for last month were 9 per cent. over same month last year.

*Continental.*—General trade is without any change. Trade with Germany and Spain, according to the Board of Trade returns, was larger than in previous year, but there was a falling off with France and Italy. On the whole, the difference is small for the year.

*Other Markets.*—Business with the Australian market shows a considerable increase according to official figures, and one-third more goods for last month have been sent to Canada than in December, 1890, but to the West Indian and South American markets there is more or less a falling off compared with same month of previous year.

For the twelve months the total quantity of linen piece goods exported from the United Kingdom shows a decrease of 13.3 per cent. and values 12.8 per cent.

### EXPORTS OF BRITISH AND IRISH PRODUCE AND MANUFACTURES.

YEAR ENDED 31st DECEMBER.	1890.	1891.
Animals, living ... ..	£862,377	£672,337
Articles of food and drink ... ..	11,258,813	10,687,139
Raw Materials ... ..	21,540,652	21,342,327
Articles manufactured and partly manufactured, viz. :-		
A. Yarns and Textile Fabrics, ...	112,447,219	106,017,948
B. Metals and Articles Manufactured therefrom (except Machinery), ...	45,222,737	39,230,009
C. Machinery and Mill Work, ...	16,410,661	15,820,316
D. Apparel and Articles of Personal Use, ...	11,286,267	11,330,947
E. Chemicals, and Chemical and Medicinal Preparations, ... ..	8,965,849	8,882,059
F. All other Articles, either Manufactured or partly Manufactured, ...	34,535,417	32,193,728
G. Parcel Post ... ..	1,000,593	1,095,463
	£263,530,585	£247,272,273

Showing a net decrease of £16,258,312 for the 12 months, or 6.16 per cent.

### Prices Current for ordinary Line and Tow Wefts. January 14th, 1892.

LEA NOS.	14	16	18	20	22	25	28	30	35	40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140	150	160
Line Wefts	—	—	—	7/6	6/9	5/9	5/3	5/-	4/7½	4/4½	4/3	4/1½	4/-	3/10½	3/10½	3/10½	3/10½	3/10½	3/10½	4/-	4/3	4/4½	4/6	4/7½	4/9	5/-	5/3
Tow Wefts	5/9-	5/1½	4/10½	4/9	4/7½	4/6	4/6	4/4½	4/3	4/1½	4/-	3/10½	These prices are per bundle of 60,000 yards of grey Yarn, subject to the usual discount for cash.														
													130 threads 2½ yds.—1 lea 12 leas—1 bank 16 banks 8 cuts—1 bundle														

*Exports of Linen Yarns and Linens from the United Kingdom for the Month ended 31st December, 1891; and in the Twelve Months ended 31st December, 1891, compared with the corresponding periods of the Years 1889 and 1890.*

COUNTRIES.	MONTH ENDED 31ST DECEMBER.						TWELVE MONTHS ENDED 31ST DECEMBER.					
	Quantities.			Declared Value.			Quantities.			Declared Value.		
	1889	1890	1891	1889	1890	1891	1889	1890	1891	1889	1890	1891
<b>LINEN YARN.</b>	Lbs.	Lbs.	Lbs.	£	£	£	Lbs.	Lbs.	Lbs.	£	£	£
To Germany, .....	143,900	225,200	211,200	14,686	19,473	16,609	2,442,700	2,778,100	3,217,000	208,812	228,273	260,847
Holland, .....	184,600	146,000	198,000	7,115	5,415	6,613	1,989,400	2,184,600	2,216,400	82,257	78,274	77,487
Belgium, .....	153,900	144,200	109,400	15,507	11,233	9,784	1,814,200	1,859,800	1,641,200	112,323	142,204	140,805
France, .....	153,000	93,200	153,900	15,440	10,665	16,295	1,556,900	1,402,300	1,566,400	166,423	148,575	171,622
Spain and Canaries, ...	358,000	303,400	238,200	14,096	10,929	8,334	3,958,800	3,860,700	3,659,000	166,738	138,361	133,330
Italy, .....	53,900	45,600	42,200	2,683	2,420	2,106	495,700	511,100	437,700	24,841	24,771	21,441
United States, .....	77,800	16,600	12,700	1,889	799	647	683,900	1,074,900	375,200	18,033	28,242	14,229
Other Countries, .....	111,200	148,700	182,200	5,708	7,638	7,965	1,503,100	1,641,100	1,736,400	69,836	77,683	78,451
Total, .....	1,236,300	1,122,900	1,152,800	77,124	68,577	68,353	13,944,700	15,312,600	14,849,300	849,263	866,393	898,212
<b>LINEN MANUFACTURES.</b>	Yards.	Yards.	Yards.	£	£	£	Yards.	Yards.	Yards.	£	£	£
To Germany, .....	218,500	213,700	265,500	10,281	11,277	13,162	3,554,800	3,234,400	3,581,900	170,176	155,929	172,434
France, .....	205,000	240,900	209,600	8,555	11,619	8,874	2,866,700	2,738,700	2,147,800	130,342	123,832	94,690
Spain and Canaries, ...	82,400	86,400	82,600	3,265	3,496	3,214	1,481,500	1,307,500	1,484,100	54,847	48,693	54,216
Italy, .....	79,800	69,800	61,900	3,576	3,223	2,622	961,600	915,400	841,800	39,693	39,189	37,053
United States, .....	9,377,000	6,994,900	7,640,100	207,090	163,365	162,803	94,222,600	93,226,600	80,603,900	2,105,104	2,103,926	1,720,123
Foreign West Indies, ...	2,098,000	1,569,500	1,373,200	38,251	23,257	26,824	20,104,000	24,053,900	18,079,200	381,023	451,030	345,218
Mexico, .....	203,100	215,900	210,600	4,391	4,841	4,596	2,168,100	2,436,600	2,227,900	51,616	58,996	52,956
United States of Colombia, .....	316,700	399,100	258,800	5,629	6,778	4,334	3,896,700	3,776,000	3,470,200	64,958	63,073	60,348
Brazil, .....	319,600	340,200	132,000	11,479	10,406	4,876	2,457,100	3,540,000	3,416,700	88,943	119,336	112,916
Argentine Republic, ...	104,600	27,900	16,900	4,342	1,083	646	2,524,100	996,500	540,000	76,743	23,283	13,339
Philippine Islands, ...	160,900	145,500	98,000	2,355	2,292	1,342	2,268,200	975,100	1,016,800	36,642	18,893	17,545
British North America British West India Islands & Guiana } Do. East Indies, ...	890,400	627,700	832,900	19,695	13,080	16,003	8,401,200	6,596,200	7,211,100	178,996	138,343	142,527
Do. East Indies, ...	88,500	207,400	145,000	2,426	4,094	2,896	1,975,000	2,257,600	2,006,900	41,638	46,362	39,914
Do. East Indies, ...	221,300	218,300	218,000	6,137	6,315	5,596	2,668,600	3,265,400	3,031,500	78,852	93,102	84,496
Australasia, .....	1,570,100	1,260,200	1,734,600	43,557	33,327	49,704	14,257,200	12,484,100	13,705,000	406,104	355,659	377,564
Other Countries, .....	1,130,600	1,326,600	1,385,600	27,722	31,453	27,862	16,823,300	17,235,800	16,074,400	404,303	410,263	384,435
Total Plain, Un-bleached, or Bleached	14,864,200	12,473,200	13,574,700	332,725	288,682	301,643	164,590,200	165,498,900	144,392,300	3,817,013	3,739,513	3,263,978
Total Checked, Printed, or Dyed, and Damasks or Diapers, .....	1,963,400	1,236,500	936,300	54,528	35,153	24,297	12,422,200	14,859,300	11,815,200	326,419	353,131	301,537
Sail Cloth and Sails, ...	238,900	234,300	204,300	11,498	11,071	9,414	3,617,800	3,681,600	3,231,700	166,548	162,280	144,259
Total of Piece Goods, ...	17,066,500	13,944,000	14,715,300	398,751	334,906	335,354	180,630,200	184,039,800	159,439,200	4,309,980	4,254,924	3,709,824
Thread for Sewing, ...	Lbs.	Lbs.	Lbs.	£	£	£	Lbs.	Lbs.	Lbs.	£	£	£
Other Articles, .....	217,200	257,400	213,100	24,959	31,813	26,756	2,800,200	2,949,000	2,465,200	365,080	353,985	308,769
Total Value of Linen Manufactures, .....	.....	.....	.....	523,642	451,281	431,964	.....	.....	.....	5,777,465	5,710,168	5,031,666

*Importations of Flax—Dressed, Undressed, and Tow or Codilla of:*

COUNTRIES.	MONTH ENDED 31ST DECEMBER.						TWELVE MONTHS ENDED 31ST DECEMBER.					
	Quantities.			Value of Imports.			Quantities.			Value of Imports.		
	1889	1890	1891	1889	1890	1891	1889	1890	1891	1889	1890	1891
From Russia, .....	Cwts.	Cwts.	Cwts.	£	£	£	Cwts.	Cwts.	Cwts.	£	£	£
From Russia, .....	91,773	123,953	102,513	120,416	172,950	138,387	1,335,305	1,333,138	1,140,988	1,866,292	1,720,854	1,499,803
Germany, .....	2,302	3,492	1,305	3,653	4,977	1,840	42,023	29,993	46,793	70,447	46,168	62,500
Holland, .....	10,996	7,686	9,519	28,768	20,485	23,805	97,385	98,463	87,104	282,905	266,274	219,929
Belgium, .....	34,583	28,947	42,016	108,829	74,672	113,848	256,651	288,296	324,534	769,190	759,812	893,196
Other Countries, .....	2,233	3,450	2,915	3,137	4,668	3,599	51,825	50,574	81,806	77,280	63,168	99,761
Total, .....	141,887	167,528	158,268	264,808	277,752	281,479	1,783,189	1,800,469	1,681,225	3,066,114	2,856,276	2,775,189

There is a sum of £200,000 due to Ireland, and we shall on another occasion have something to say about it.

It would be out of place to conclude without touching, even though shortly, on the general bearings of this question, the reason why such efforts are being put forth to press it on, and the purposes it designs to accomplish. Technical Education has been well defined as being in its widest sense that "kind of education which directly keeps in view the work of after life," and which will enable all classes on whom the material welfare of the nation depends to play their part better in the industrial and commercial life of the country. This fact has long been recognised by the Continental nations. They have long realised that the matter was a national one, and not one to be deputed to private effort. They have never hesitated or scrupled to use the resources of the State or the Municipality to this end, and have insisted on the thorough training of the youth of the country in technical and trade matters. England has, owing perhaps mostly or entirely to her absolute commercial supremacy, neglected to do so, deeming it no doubt a work of supererogation, and unnecessary. She is now waking up to the fact that, notwithstanding all her superiority, she is being ousted from some of the markets of the world. She is being beaten on her own ground, and all from the lack of intelligent education of her youth. Secondary Education in Great Britain is even now in such a state as to demand serious attention. Of its condition in this particular portion of Great Britain the less said the better, if we would avoid disgrace. Modern languages, natural sciences, commercial geography, have all been neglected. The system of trade apprenticeship is at last being found out to be by no means the best mode of teaching trades and handicraft. We have before us the views of a mechanic on the subject of Industrial Education. He says the first year of apprenticeship is spent as errand-boy to the establishment. The second year is spent as errand-boy to the workmen, being often called upon to do things which "have not the slightest bearing on his trade." About the end of this period he is given his first skilled job, and he will probably spoil it because "he does not know how to set or place the tool in the machine, or he is at a loss to know how to hold the chisel or use his file." The adult workmen have no time to teach him, and the foreman also is too much engaged. What is wanted, our mechanic says, is that "a boy should be better prepared to enter the workshops;" he should have a sound education, especially in geometry and mensuration, and "should have practical lessons in the use of various tools." Sound views such as these are gradually forcing themselves to the front. Both workman and employer are beginning to recognise that more than the proximity and abundance of the raw materials are requisite for England to hold her commercial supremacy. They are beginning to see the importance to themselves and the workmen and the nation of the cultivation of the intelligence of the working population. For nothing is more certain than that the absence of an advance in this direction will seriously threaten the industrial position of England. It must not be thought that the advocates of Technical Education wish in any way to neglect the ordinary literary education. Far from it; but they do wish to bring the one into contact with the other, and get the two to so fit together as to form one harmonious whole. The primary education as at present given to the youth of England fits them for clerks, not to become artisans. They leave school able to read and write, but if they enter upon a trade they do so in absolute ignorance of everything which would fit them for it, and without the slightest notion of what "handiness" or handicraft means. Sir Henry Roscoe attributes much of the blame to the short period of school life. No great improvement, he says, can be looked for until two more years are added to the time passed at school. Fourteen, not twelve, should be the general age for leaving, except in the case of a boy leaving for definite employment. And faulty as is our primary system, our secondary—such as it is—is worse. Professor Huxley, in an address delivered in Manchester, pointed out that the "terrible battle of competition" between the nations of the world is no transitory phenomenon, and does not depend upon this or that fluctuation of the market, or upon any condition that is likely to pass away. It is, he said, the inevitable result of what takes place throughout nature, namely, the struggle for existence arising out of the tendency of all creatures in the animated world to multiply indefinitely. Thus, what is a "terrible battle" to-day may, on an early morrow, become a disastrous defeat if we do not look to it. For long we stood without a rival to our commercial supremacy; in many departments we had no rivals; but that state of affairs no longer exists, and the commercial position of the country in a generation or two is a thing no man can

foretell. "This, however, is certain," says the writer of one of the pamphlets issued by the National Association for Technical Instruction, "energy, wealth, determination, will carry us far; they have carried us a long way in the past. But trained intelligence, scientific knowledge, and flexibility of mind will count for more and more in the industrial struggle among the nations. The battle in the future will be to the wise as well as to the strong. Educational methods are not reformed in a day, and if we are wise we shall not lag long behind in the matter; skill, pains, money wisely expended on National Educational reform are more certain of a good return than any other investment that can be made." England is rapidly sinking vast sums in this investment, and it is as sure as that the morrow will dawn that she will reap a corresponding advantage. Is she to have all the investment and all the profit, while Ireland looks on and wilfully neglects the opportunity, neglects to take up her shares in the capital, and neglects to consider the position she must inevitably continue to hold amongst the commercial peoples of the world if she fails to bestir herself at once and in earnest?



#### NOTES ON SOUTHERN INDUSTRIES.

*To the Editor of the Irish Textile Journal.*

SIR,—As you take an interest in the industries of the South, you may like to hear that pleasing accounts come from Limerick with respect to the lace-makers employed by Messrs. Cannock & Co., whose work I examined when there. Seeing that the patterns used at the time were rather old-fashioned, I recommended that better ones should be got, and was glad to see a great improvement. The demand for the run and tambour lace made by these workers has increased, but Messrs. Cannock cannot supply all that is wanted, being unable to find a sufficient number of capable hands. An effort is now being made to train some young girls, and with good prospects of success, and it is to be hoped they will remain in the district instead of emigrating to America as so many other trained workers have done. It would be very desirable that the city of Limerick should maintain the name which it once had as being the home and headquarters of a beautiful class of Irish lace. The praiseworthy endeavours of Mrs. Vere O'Brien, through whose influence a school of lace has been formed, guarantee the permanence of the industry. So far as can be judged, the young women taught at the school will greatly excel the old workers, as the style and quality of Limerick lace had declined greatly for some time, and the women of the last generation are not likely to keep pace with the improvements of the present day. The efforts now made to apply art to industry are telling by degrees, and will in time extend considerably. Here, in Cork, the Crawford School of Art will certainly exercise an increasing influence. This excellent institution gives a course of instruction, comprising Elementary Freehand Drawing, Geometry and Linear Perspective (elementary and advanced), Shading from the Flat and the Round; Freehand drawing from casts, figure, and ornament, together with flowers, foliage, and natural objects; Modelling from ornament and figure; Painting in oil and water-colour from the Flat and from Nature; Figure and Landscape; principles and practice of design, as well as other subjects; whilst the Science Classes at the School of Art include Practical Plane and Solid Geometry, Machine Drawing and Building Construction.

The present able and efficient Head Master of the Crawford School of Art (Mr. Mulligan) informs me that there is a large class of trade students, comprising masons, stone-cutters, carpenters, and plasterers. Eighty of these joined the class last autumn, owing to the initiative of the United Trades Association, which pays half the fees, whilst by order of the Committee the School itself reduced the fees by half for this class. It is satisfactory to find the working classes availing themselves of the facilities given at the Crawford School. Mr. Mulligan, however, tells me (as Mr. Brennan did formerly) that there is no demand amongst the Cork industries for art designs, still he finds that young men of the artisan class take an interest in art, and a class for modelling in clay has been formed, which is chiefly composed of these workers. With respect to lace designs, eighteen produced at the School were disposed of last year, and the name of Miss Emily Anderson, who is one of the assistant teachers, is well known in connection with these designs. The works of students at the School are sent each year to South Kensington, where prizes are awarded to the best in competition with other Schools of Art, and the examination for "Mayor's prizes" takes place each year about November. Two scholarships of £50 each are offered annually to enable the winners of them to study at South Kensington or other Art centres. I may mention that amongst the prizes obtained of late years at the Crawford School, Miss Anderson received the "National Competition" prize for a sideboard cloth in cut linen and embroidery.—I am, &c.,

AUGUSTA JANE GOOLD.

Cork, January 4th, 1892.

## CONSULAR DISTRICT OF BELFAST.

Declared value of Exports for 1891, compared with 1890.

	Year ending Dec. 31st.	
	1890.	1891.
Flax and Tow ... ..	£97,191 10 1	£107,965 6 10
Threads and Yarns ... ..	55,961 8 8	39,551 17 1
Linsens, Unions, and Cottons	1,711,926 0 9	1,460,582 5 2

We have to thank Mr. S. G. Ruby, United States Consul for Belfast, for kindly supplying the above particulars for publication.



(From our Correspondents.)

Whilst we endeavour to obtain the most reliable reports from the best sources of information, it will be understood that we do not hold ourselves responsible for the views of our correspondents.

**Irish.**

**DUBLIN.**—The markets are still quiet, very little is doing in any direction, but still prices on the whole are being maintained. Linens may be said to be unchanged since last writing, and in woollens, although very little is doing, the general feeling is hopeful. The exports to America have undoubtedly suffered enormously from the M'Kinley tariff, but perhaps this has affected England more than our local houses and manufacturers. They too, no doubt, felt the effects of the change, but I believe not to anything like the extent their competitors across the channel did. In yarns, operations for export are very restricted, but there is an encouraging inquiry, and spinners are by no means inclined to waver in their stand out for good prices. The latest quotations for wool are:—Demand better than expected for hogget fleeces, and prices slightly improved. Hoggets, 10½d. to 10¾d.; ewe and wether, 9½d. to 9¾d.; seaside, 8½d. to 9d.; mountain, 8d. to 8½d.; washed Scotch, 6d. to 6½d. Silks and poplins are as usual.

**The Industrial League.**

This League does at last appear to be moving, and moving more or less in the right direction. It certainly is more vigorous and, as far as I can judge, more practical than it was. Its meetings are better attended, and it really does seem to do some business in the way of assisting industries and obtaining information about and for them. At its last meeting, for instance, a letter was read from Glenties, from a member who has already much assisted the industries there, asking the League to exert its influence in finding an extended market for the knitted wares. The work, as all know, is excellent, well finished, and neatly executed, but the people are poor, and unless a ready sale is found for the completed articles, they cannot afford to obtain materials for making others. The peasantry, it is pleasing to learn, are thoroughly in earnest and hard working. The League wisely decided to do all in their power to extend the market, and as Glenties lies within the sphere of action assigned to the Congested Districts Board, it also decided to bring the matter under its notice, especially as the industry is one with which the Board is empowered to deal. At this same meeting of the League, other industries, such as weaving, tape and lace-making, were brought under notice, and in every instance steps were taken to assist or advance them. On the whole the League is progressing, and as long as it really does attempt and accomplish something, I shall be glad to notice it—if permitted—in these notes from time to time.

**The Metropolitan School of Art.**

With Christmas and the New Year has come the exhibition of the work accomplished in this School during the past session. Mr. W. J. Brennan, R.H.A., the Head Master, has every reason to be proud of his School and his pupils. In Art work, one of the pupils has gained the highest award which the Science of Art Department give; but however much such work may interest or concern a different portion of this Journal, I have only to here note those exhibits and prizes gained by the execution of designs for textile fabrics. I am pleased to note that this year these are more numerous and much better than formerly. This shows that more time is given up to them, and that the knowledge is progressing, also that there is a demand for them commercially, else such would not be the case. Miss E. Wilkinson has taken numerous prizes and awards for her work, including designs for a handkerchief in Limerick lace; in Carrickmacross *appliqué*, designs for trimmings on net ground, founce on net ground, founce and handkerchief, also for a crochet design. Miss Alice Jacob shows designs for—*Portière* embroidered on linen with coloured flax thread; an embroidered and cut linen curtain; founce, handkerchief and trimming borders in Carrickmacross *appliqué*; lace, handkerchief in Carrickmacross guipure, collar and cuffs in crochet, and a tea-cloth border in Mountmellick work. Miss K. G. Smith has designs

for asideboard cloth in Mountmellick work, a handkerchief in Carrickmacross *appliqué*, insertions in Clones crochet, and plastron, cuffs, collars, and trimming borders in silk crochet. Miss Fannie C. Barklie shows a design for a founce in Carrickmacross *appliqué*, and a trimming border in Limerick lace. Miss Ada Crowe has designs for a Limerick lace founce, an alb in tambour Limerick lace, and an altar frontal embroidered on satin with silk crochet border. Miss K. A. Smith shows a plastron, cuffs, and collar in silk crochet. All these designs have passed the examiners, and most of them on "prize" work. But what is really of more importance—seeing the opposition School of Art designs have met with in some quarters—a large number of them have already been worked from, and actually executed in, lace. The days of "impracticable" designs are, I hope, past for ever. That at one time certain schools turned out pretty but unworkable designs cannot be—and is not—denied; but what the friends of Art and Technical Instruction say is that such, in most schools, is not now the case, and that for every unworkable design which these schools under the Science and Art Department of South Kensington produce, you will find hundreds of really good designs. In other words, the schools are practical—as far as they go; but that is not by any means far enough to satisfy the writer of these notes, or to be in a position to satisfy the demand which such industries ought to, and I hope will, before long, make upon them.

**LURGAN.**—The linen cambric handkerchief trade here, which had been very dull for a long time, is believed to be on the turn for the better. The old stocks of goods, no doubt, will now be all wanted; but those which are made at present of line yarns will, it is feared, only slowly sell, the advance in price is so great, and buyers are hard to be persuaded that the present rates will stand. Power-loom manufacturers are still busy; the turnout from hand-looms has been pretty large, though not at all up to what it used to be. Linen handkerchiefs (boiled yarns) are slow, and weavers' wages for these have been reduced. Machine hemstitchers are fairly busy. There is talk of one of the local stitching factories here transferring its operations across the Atlantic, and another just burned down will leave more work for those remaining. The factory burned had just added the knitting industry to its business, which was the second started here in that line lately.

**NEWTOWNARDS.**—There has been a break in the activity which for the past six or eight months has characterised the hand-loom weaving trade; but this in some measure is to be expected, in consequence of the Scotch manufacturers being off for the holidays and stock-taking. There are rumours, however, that an improvement is near at hand. The various mills and factories in the neighbourhood are fully employed, which makes any slackness in the hand-loom weaving not so much felt as it would have been in former times. Mr. William Grant's new power-loom factory at Movilla, for weaving of shirtings and other woollen goods, is being proceeded with, and when finished will mean a further branch of industry in the neighbourhood.

The season's flax crop has given the farmers good results on an average, and, in consequence of the higher prices paid this season, it is expected that the sowing for the approaching season will be greatly increased. Of course there are instances where the crop has not been remunerative, but this is true of all crops grown by the farmer.

**English.**

**LEEDS.**—The state of the textile industries in this district has not, on the whole, been as encouraging as in the year 1890. It has been a struggle in most branches for manufacturers to keep their machinery running at a reasonable rate of profit, and although in some special classes of goods a fair return has been made, still it has not fulfilled the expectations of producers. The M'Kinley tariff has had a decided effect on the export of cloths to the United States, and there seems little prospect of much improvement in this direction during 1892, and especially is the outlook gloomy as regards medium and low classes of fabrics. The tariff, up to the present, has affected the higher grades but little, and the year closed with numerous inquiries for worsteds of the best qualities. The financial collapse of South America has also had a very depressing effect upon textiles, and this district has felt it in full force, as hitherto large quantities of fabrics have been exported to the various countries in South America. Other foreign countries have taken an average supply of cloths, and the outlook for the future, although increased duties are the rule, is, on the whole, fairly satisfactory. As regards the home markets—by far the largest—they have not been affected by any exceptional circumstances, and although the general trade of the country has not been brisk, still an average business has been done, and numbers of firms who cater specially for the home trade have been working full time, and evidently to their own benefit, as in many cases the wages of their workpeople have been increased. The fabrics that have been most in evidence during the year have been fine worsteds in good designs and colouring, medium class woollens, and also low woollens for the ready-made clothing trade; serges in various shades in rough makes, meltons, and fancy cloths for mantlings. Other classes of cloths have generally fallen off, both in production and demand. Prices of nearly all descriptions have fluctuated slightly, in sympathy with those of wools at the London sales. There has been but little speculation in any department



during the year, either in the buying of wools or in other commodities, the general run of business having been to purchase for actual needs.

**BRADFORD.**—Little but what is of a very despondent character can be written of trade in this district during last year. There has been scarcely one redeeming feature during the whole course of the twelve months, and it has been the general feeling that this district has never before passed so gloomy a time. There have been, previously, periods of depression, relieved by short spurts of good business, but this has not been the case during 1891. Of course, it is well known that the tariff in the United States has been chiefly to blame for this state of things, but, in addition, the unsettled condition of the countries of South America has also had a great effect in this district, as it has in other parts of England. The year opened with a slow and dragging demand for wools, which has characterised this branch more or less during the whole twelve months. Staplers generally have had a bad time, and those have been lucky who have been able to hold their own. As regards prices, there has been but slight changes, still the year closed with rates from 5 to 7½ per cent. lower than the previous year. The general feeling amongst dealers, now, is that wools generally are safe stock, the price of nearly all classes being very low. With respect to the yarn trade, the foreign business for the first six months was fair as regards demand, although prices were cut very fine; but during the second six months a gradual falling off was perceptible, and had it not been for the steadiness which the home trade has exhibited, business would have been at a very low ebb, and prices would certainly have dropped considerably. At the close of the year there were signs that yarns for the coating trade would shortly have a run, and makers are hopeful of a large business being done in these. Mohair and alpaca yarns have only had a demand of a hand-to-mouth character. The total turnover of all classes since last July has been below an average. The trade done in the piece goods branches has also been below the average, as, in addition to the hostile tariffs, Bradford has had to cope with the fact that fashion has given the preference to fabrics of the cheviot and tweed character, these cloths of Scotch make having been used largely for dress materials. Efforts have been strenuously made to open out new markets, and, on the whole, these are likely to be successful, judging by the reports of the wholesale houses and merchants. The feeling amongst manufacturers is that 1892 will be more in their favour, and that, with the past year, they will leave behind a depressing remembrance that has taught them many lessons, with a result that new markets will speedily be opened out that have hitherto not been approached as they might have been.

**BARNSELEY.**—During the earlier months of the year the trade of this district was, as a whole, in a fairly satisfactory condition; profits did not, perhaps, tend in the manufacturers' favour, as the prices of the raw material and yarns advanced, still, as regards rates, 1891 compares favourably with those of the preceding year. The greatest demand, in nearly all classes of goods, has been for the medium and lower qualities, and producers consequently turned their attention mostly in this direction. Perhaps the least satisfactory branches of business have been fine quality damasks, table linens, and hand-woven goods; in fact, the latter makes seem to be gradually declining, and it is evidently only a question of time when the hand-loom will be a rarity, so far as it is being utilised for the production of lines in this district. The business in other descriptions of fabrics has been about an average one for the year, and had it not been for the outlook in South America, which has so largely affected other industries, Barnsley might have reckoned upon the best year on record. The foreign business with other countries kept fairly good up to August, since when there has been a gradual decline in the demand. The home trade has been fairly good until within a few weeks of the close of the year, when business became much quieter, and this fact, coupled with the slower call for foreign account, has already compelled manufacturers generally to curtail their production, and to this end many are now running short time, and have also stopped many looms altogether. Should the political outlook in South America improve, producers are hopeful of a return of satisfactory business. As regards the effect of the M'Kinley tariff on this district, it has not been felt to the same extent as in many other industries, and, up to the present, linens have only been produced in a small way in the United States. In the production of novelties, as regards design and colour, the fabrics made during the year compare very favourably with former makes, and in numerous instances have been much ahead of preceding years, the tendency being, even in the cheaper classes of goods, to put effective designs and well-finished cloths upon the market.

**MANCHESTER.**—The linen trade here displays no new features. Deliveries on account of orders already given have been made, but no new contracts of importance are being placed just now. The shipping houses have received more inquiries from South America of late, and for drills there has been a brisker demand. Jute bagging and sacking for Brazil is wanted in large quantities. French spins of flax yarns are not seen in such large quantities as previously. The Lille people, as previously noted, are evidently not holding their own in outside markets. As far as this country is concerned, consumers are unanimous in their support of this statement. Fancy German linens are gaining ground in the estimation of American buyers. The representative of one of the large Chicago houses who was here recently stated that his firm had now commenced to look upon German houses as the leaders in this branch. Many of the fancy damasks, with ornamented fringes, sold for the American and the better class home trade, are embroidered by hand.

The large fortune left by the late Mr. Taylor of Barnsley—the personality amounting to about £120,000, in addition to which there were considerable investments in land—shows that there is still some money in the Yorkshire town. A *History of Barnsley* is, I understand, being prepared. It will deal largely with the linen trade of the town.

#### Blankets from Irish Bog.

Some time ago—it is unnecessary to particularise, as the gentleman I am about to refer to is still living—the London correspondent of a certain newspaper forwarded an extraordinary paragraph concerning a cloth said to have been woven from yarn produced from the peat found in Irish bogs. It was further affirmed that the cloth in question had been made into a coat, which could be seen at the address of an agent whose name I forget. The report was of such an extraordinary character that its accuracy was doubted, and the correspondent was written to on the subject by the editor. In the end nothing was said of the matter; and with such an example before one it may seem a bold thing to repeat a statement of a similar character. I am told, however, by a gentleman whose word there is little reason to doubt, that Dewsbury is actually producing shoddy goods, including blankets, of which the web is composed of yarn spun from fibres obtained in the bogs of Ireland. The yarn is coarse, and will not, it need scarcely be added, bear much tension; while the process of washing is not, one would think, calculated to improve the appearance of such goods. My informant was asked how the shuttles could carry such yarn from side to side of the loom without breakage. "Well," was the reply, "there are shuttles now which run on wheels!" This is not offered as a "big gooseberry" story. It has reached me from two sources entirely unconnected with each other, and is now given for what it is worth. The man who invented the "devil" may not have regarded the task of producing machinery to manipulate Irish bog as a difficult one. It will not encourage buyers to know that they may have to pay good money for fabrics produced of such extraordinary materials. Yorkshiremen have, however, done many clever things in connection with their staple trade, and they may have further surprises in store.

#### A Record in Low-priced Cotton.

Indirectly your readers may be supposed to possess an interest in connection with the cotton market. The low price to which cotton has fallen at the time of writing has surprised the oldest spinners in the trade, who say that the material has not been so cheap since the period which preceded the American Civil War. On the 5th inst., fabrics were quoted from 4d. to 4½d., the former being for January and February, and the latter for August and September delivery. Business was done on the 6th at 3½d. This latter is the bottom price so far, although no one knows whether rates will go lower or not. "Big crop" prophets are jubilant, and spinners are told they must not allow the market to be "bulled." Liverpool, however, has some peculiar tricks of its own which Manchester does not always fathom; the meaning of the fall has in a sense made shippers cautious, as they expect to reap a portion, if not all, of the benefit. This makes the position little, if any, better for the trade. Belfast should be able to reap some slight advantage from the change, seeing that, from the showing recently made in the Journal, such large quantities of cotton yarns are consumed in the North of Ireland.

#### Ramie Yarns.

Further experiments are being made in connection with the spinning of ramie; and if the truth were known, it would be found that the material is consumed much more largely than manufacturers are prepared to admit. The fear of prejudice amongst buyers against fabrics composed of materials as to which they are ignorant may account for this. The yarns are used in combination with woollen, and it is said that the cloth resulting possesses most valuable features which should ensure for it a steady sale. A most attractive feature in connection with ramie is that it takes the dye very well, and thus contributes toward the obtaining of an attractive effect. French spinners, I am told, have made the production of ramie yarns a commercial success. Spinners at Wakefield once embarked in the business, but nothing has lately been heard of their schemes. It may be added that towellings entirely composed of ramie have been unable to compete with linen goods owing to their dearness; although, if the cost of production could be lessened, many think that they would have a fair chance of success in competition with other goods.

**LONDON.**—The dense fog which commenced a week before Christmas, and remained with us till after the holidays, had a most paralysing effect upon the dry goods trade of the city and suburban districts. For six consecutive days we were in darkness. Traffic was well-nigh stopped; and it was not till St. Stephen's day that a fleet of vessels, numbering considerably over one hundred, bearing all manner of produce for the Christmas market, were able to put into port. The loss to the importers was very heavy. In the great majority of cases the cargoes were only intended for the Christmas market, and were therefore thrown upon their hands to be realised at whatever price they would bring. Tons of the goods were declared unmarketable, and were ordered to be destroyed. Some merchants who had bought early were, however, more fortunate; for they not only got rid of large stocks, but sold at very profitable prices on account of restricted supplies.

An immense business was done at the Post Office owing to the fog; for what private enterprise failed to do in the matter of deliveries, the Post Office, backed by the police, who at all times expedite the progress of the royal cart, was able to carry parcels, and deliver them in reasonable

time. Hence the city houses took advantage of this mode of conveyance for small purchases; and from a return which has been published, I learn that no fewer than 112,908 parcels were posted at the Christmas time, or nearly 82,300 more than in 1890. 37,000,000 letters, etc., were posted. This is the modest return for the London districts, and of this enormous amount 33,000,000 were safely delivered in the week ending 24th December, 1891, which beats all previous records. To cope with this, 4,634 additional hands were engaged, which included a force of nearly 800 police—the entire extra work involving an expenditure of £15,000.

The statistics of Mr. Richard Seyd, F.S.S., which have now been published for 1891, show in the aggregate of all the trades a decrease of 36 in the number of insolvencies. Unfortunately, however, in extracting the statistics which refer to the various branches of the dry goods trade, I discover that we are in excess of 1890 by about 76 failures. The volume of business done during the year, notwithstanding all the drawbacks, will, however, be larger than in 1890, but, I am told by some of the most experienced men in the trade, very much less profitable than in 1890, consequent upon the number of sacrifices which it has been necessary to make from time to time.

#### The Milk Street Agents in bad spirits.

Owing to the quietness of trade, one would have thought that, with the advance in prices, they were actually coining. So I thought; but upon congratulating one of them, I received the reply, "You are quite mistaken. We are virtually at a standstill, the distributing houses being nearly every one oversold since October, and the manufacturers will not take orders except at the advance prices which we find at the present impossible to get from buyers in London; and as for the makers-up, they too are of little service to us, seeing that they bought largely before the advance for forward delivery. The market has been nearly swept by the Continental and American trade, the former having bought largely in anticipation of the French tariff. Possibly next month we may see a large business done in table damasks and in household linens generally during the annual clearance sales in the retail trade. The handkerchief trade is also quiet, buyers having nearly all placed their orders; and it will be hard to get the higher prices asked by the manufacturers, unless the houses are forced into it by some unexpected great demand."

Here my gloomy interview ended; and as I came away looking back at the dark picture which had been sketched for me, I remembered the depressing effect which London fogs have even upon Milk Street men, and that possibly a great deal of the shading was the result of the heavy atmosphere. Is it to be hoped that I am right in my surmise, and that the sun of prosperity may shine more brightly on the Ulster trade of 1892 than it has in the year which we have bidden good-bye to.

#### Scotch.

DUNDEE.—A fairly good demand is kept up all round for season of the year, and the outlook for business is encouraging. Prices rule firm for both yarns and cloth. On spot, demand for flax is quiet, but sales effected are at top rates for the better sorts. Yarns continue to move steadily into consumption, and spinners keep well foresold. There is no change to note in prices. Linens—Current demand has been quiet since last month, and orders placed have been mainly for assortment purposes. Still, with old contracts on hands, manufacturers keep fairly well employed.

Scotch Yarns (1st Quality)		Per Spl.		Per Bundle.	
FLAX.		s.	d.	s.	d.
Dark 1½ lbs. per spl. or No. 32	23	1	3½	1	4
" 1½ " Warp " "	23	1	3½	1	4
" 2 " " " "	24	1	4½	1	5
" 2½ " " " "	22	1	4½	1	5
" 2½ " " " "	20	1	4½	1	5
" 3 " " " " "	16	1	5½	1	6
Tow.					
8 lbs. Dark Warp " "	16	1	3½	1	4
8½ " " " " "	14	1	4½	1	5
4 " " " " "	12	1	5½	1	6
5 " Warp Medium " "	10	1	7	1	8
6 " Dark Warp " "	8	1	8½	1	9½

#### Continental.

BRUSSELS, January 9th.—FLAX—Good qualities—that is to say, medium, good medium, and fine—continue in very good demand; but the general opinion seems to be that there is more choice in medium and good medium than some few weeks ago. YARNS—There is still no change, the actual advance in Russian qualities being from ¾d. to 1½d. per bundle, and in Flemish flax yarns from 1½d. to 4½d. per bundle from lowest point. This state of matters is likely to continue, although stocks in spinners' hands are almost nil; so much so, that in many cases they cannot deliver in reasonable time. Of course, Russian flaxes have been selling at very low prices, as indeed have low Flemish qualities. Although prices of Belgian yarns have advanced but little, there has been a very smart advance on all wet-spuns in France from 6d. to 1/3 per bundle. LINENS—This end of the trade, combined with linen threads, continues in a thoroughly lifeless condition, one hearing of few orders even at old prices.

In Courtrai, where manufacturers do largely with South America, sales have been almost nil, but manufacturers continue to work for stock, seeing that there has been little or no advance on the ordinary qualities of yarns, whereas manufacturers of good linens have reduced their production to the lowest point, on account of extreme prices of good yarns.

TRADE IN THE INDUSTRIAL DISTRICT OF SAXONY.—At the conclusion of the preceding year the whole German industry, and especially that of Saxony, found itself in an unfortunate situation. Orders were almost altogether wanting, and even those which were obtained could only be executed at a loss owing to the low prices. The business conclusions of most joint-stock companies which have been published show this sufficiently, and at the same time strengthen the belief that private undertakings have also been carried on at a loss, or at any rate with much smaller profits.

There is more hope felt now as to the future than was the case twelve months ago. The work in the factories has considerably improved during the last few weeks, and most businesses, although not all, have taken up full work again. The prices are, however, still so depressed that they cannot insure any advantage worthy of mention, but with regular work an alteration, that is an improvement, will occur. And so we gladly take leave of the Old Year, and greet the New Year with all sorts of hopes and wishes for a return to a better state of affairs.

The year 1891 was not very favourable for the Chemnitz industry, since the effect of the American barrier duties against the textile products had not been compensated for by enterprise in other directions. Even the new commercial treaties, which offer more favourable conditions to the trade with Austria and Switzerland, have not been able to inspire our manufacturers with very great hopes. Neither the cloth nor furniture-covering industries have very much to show for their work during the past year; because their export to the United States has been made very difficult.—*Kuhlow's German Trade Review.*

TECHNICAL EDUCATION OF PLUMBERS.—The Northumberland County Council, in addition to promoting classes for plumbers' apprentices at different local centres with a view to the certificate of registration offered by the Worshipful Company of Plumbers, London, has appropriated £50 for the purpose of providing facilities early next year for a few practical men to pursue a course of training for three weeks at the Durham College of Science. It is hoped that other county councils and county boroughs in the northern district will do the same, and at the annual general meeting of the district council for the North of England a resolution was carried to that effect. Another resolution urged the necessity for securing the greater sanitary efficiency of plumbers' work by an organised and efficient system of registration, which could only be secured by a council of competent jurisdiction and authority, having Parliamentary powers. A bill to this effect is now being promoted, and a copy of the resolution has been sent to the members for the district. At a recent meeting of the district council it was decided to invite Mr. Charles Williams, the organising secretary to the Technical Education Committee of the County Council, to undertake the duties of honorary secretary.



#### United States Market.

(From our Correspondent.)

NEW YORK, December 31st, 1891.



THE thermometer to-day stands at 42°, or ten degrees warmer than freezing point. This abnormal winter temperature has spoiled the fitness of things in and about New York City—and one hundred miles north—every week since the cool season began, and weather prophets are holding the mirror up to Nature, and telling her that her reflections thereon bear a very strong resemblance to those of 1889-90. That was the famous "open winter" that upset all calculations, and worked serious damage, if not ruin, to many branches of business. Seasons must come and go in normal fashion in this land, if the commercial equilibrium is to be preserved. Preparations are made long in advance. Clothing for next fall and winter, 1892-93, is now in process of manufacture; the material for the coming summer's shirts was ordered months ago, and some of it is already made into garments,—it is not difficult to see, therefore, that a warm winter or a cool summer will throw our business affairs out of adjustment.

Christmas trade was a failure—not a teetotal failure, of course, but, etc., etc. The week aped London *airs* to perfection, almost. Nothing was wanting to complete the resemblance—nothing but the permeating and lasting London fog! The week set in with clouds and threatening of rain, but the weather contented itself with scattering showers, until that day-of-all-days for the retailer—the day before Christmas. That was a day! The rains descended, and the floods came, and the winds blew; and when night closed upon the scene, a day had gone by that had left, as an entail to its elemental strife, many hundreds of thousands of dollars worth of stock upon our retailers' hands—stock that will make heavy losses in the fancy end, and which in the staple departments will remain to affect importers' sales for months to come. If the reader will glance between the lines, he will observe that I am saying a word for our handkerchief houses. Many of them had poor luck with sales leading up to Christmas. "It's all cheap

cottons and trash embroideries. No money in it. The Christmas handkerchief trade is nothing like what it was in former years. There's far too many of us in the trade, anyhow," said an old-time importer to me at the middle of the month. Then followed the poor Christmas week: there'll be "cauld kail in Aberdeen" for a while.

The housekeeping-linen show will enliven our retailers' windows next week. It opens the season at the beginning of each year, and is not confined to fine damasks, by any means. Towellings of all grades, and crashes, are to the fore, as well as ordinary damask in the piece, cheap napkins, etc., etc. But the beauty of the show consists, of course, of handsome damask effects. Should I discover anything worthy of claim to originality it will be reported for February letter. At the same time what is known as "the Shirt Fair" will be in progress. For weeks gone by, shirt-makers who make a specialty of the plain white garment have been preparing for delivery to the big retailers (not the very swell ones) of many thousands of dozens of shirts prepared in the unlaundered state. These, or a good portion, were delivered this week, and on Monday coming, 4th instant (New Year's day and Sunday having Saturday coming between them), counters will be piled high with shirts that will be sold for prices that will leave little margin to the retailer save the discount he obtains for his ready cash payments to the manufacturer. A garment of fair quality muslin, with bosom and neck-band of 14<sup>00</sup> linen, will be sold for 20 pence. Britain could scarcely do better.

4/4 linens hung dull in the scale throughout the month. Heavy contracts at varying ranges of prices are upon all importers' books. "Covering" has been done that provides for months to come, and trading transactions now consist of "orders to ship" such linens as manufacturers' cutting books call for. Being well secured, they need manifest no anxiety, these provident manufacturers, and importers can do no charging-up until ordered. Prices remain firm, all the same, nor should the situation be otherwise, according to Belfast gospel. Market is dull all around. Business changes are few, and such as we note are in the handkerchief line. Samuel W. M'Bride has given up his store, and has made over his business to David Carlisle. W. E. Story goes with the account. Lyons & Woods have branched out from a simple "order" trade, and will carry stock. They will occupy the premises on White Street vacated by M'Bride. H. & T. H. O'Neill have passed out of the handkerchief trade entirely. John Clendinning & Co. have gone into larger quarters, at 119, Franklin Street. John W. Cochran, an old-time handkerchief man, has retired from business. James W. Aughlilree, who once represented the Sintons, died at Christmas time. John Dugan & Co., linen threads and cotton handkerchiefs—house in business since 1864—retire, and will be succeeded by John R. Hall & Co.

The *Dry Goods Economist* gives the following list of linen mills built or in course of construction. *Iowa*—Cedar Rapids.—The Cedar Rapids Linen Company, incorporated for the manufacture of towels, towelling, and the coarser linens. *Michigan*—Croswell.—A flax mill will be established at this place by Livingston & Co., of Baden, Ont. *Minnesota*—Austin.—Negotiations have been completed for the erection of a large flax fibre mill, the corporation operating the same being known as the American Fibre Company. *Wisconsin*—Waupon.—A company to manufacture flax products has been organised by M. K. Dahl, J. J. Roberts, and others.

#### TRADE IN MONTREAL.

THERE are more than ten years since the dry goods trade had so much to contend with in the way of weather. In the district, of which Montreal is the centre, the mildness is up to this time like that of September, with the exception of a few days, and even then the cold was not sufficient to frighten people into laying in seasonal goods. And it is a belief among the trade that if people do not buy before the first of January they will not buy at all. The holidays are in sight, and there has yet been no call for the goods usually incidental to the season, and most of the dealers have made up their mind to selling none at all. But they are taking advantage of the dulness to take stock and find out just where they stand. This refers more particularly to the retailers, but it will reflect upon the wholesale trade in due course. A matter that puzzles everybody is that collections are so obstinate when the country is full of grain, when farmers in Ontario have marketed largely, and in most cases remunerative prices prevail. A canvass of all the leading dry goods firms bears out the statement that collections are unprecedentedly bad, and the blame is thrown upon country merchants for not looking after their accounts. The farmers are, as a rule, slow to appreciate business needs, and they are apt to consider to-morrow better than to-day. The retailer does not choose to instruct them, and so the burden is thrown upon the wholesale merchants. This carelessness is embarrassing the trade of the whole country, and at the end of a long period of depression is counteracting the effects of the prosperity that should now be felt. The evidence from the country merchants is accumulating to show that farmers are being particularly pressed by the implement men and by money lenders, and that they are giving these two classes their first attention to prevent a seizure of their goods and a foreclosure of mortgages. This condition is only temporary and must pass. There is ground for nothing but hopefulness since all classes have taken the lesson of caution to heart. Money for legitimate business is easily obtainable at the banks, and it is likely to remain plentiful for purposes of moving the crops, but the time and signature of the paper

require to be right. The period of failures appears to be at an end. Within the last month there has not been a serious dry goods failure throughout the whole of Canada. The prices of staple goods are stationary or downward, but as a rule values are firmly held without change. The price of cotton is firm, under the leading influences of the syndicate, and according to the advance in the listed value of Canada Cotton Company it is probable that this concern will soon fall into the association. The stock is advancing, and operators appear to expect this. Travellers are now at their busiest, and send in hopeful reports of the spring trade. They have a full line of samples, but are pushing Canadian cottons and woollens, and booking good accounts for the early part of 1892. Last summer the buying for the fall trade was so scanty, it was confidently believed that the sorting orders coming in on the spring trip would be a feature of trade, but these looked-for orders have not become a factor.

Wholesale houses in Toronto have completed their stock-taking, and the general report is that the past year's trade has been good, considerably larger than last year, and money has on the whole been satisfactory. Sorting orders for the fall and winter trade have been very fair, and would have been something out of the common had it not been for the unseasonable weather. Retailers bought largely early in the season, in anticipation of an unusually brisk demand owing to the splendid harvest prospects, and have continued to keep their stocks well up. But in a great many sections of the country, although the harvest came out as well as was expected, the looked-for brisk trade has not yet materialised to any remarkable extent. What we want is a heavy snowstorm, followed by a good old cold snap, and any day we may see that want supplied. Toronto houses report that they are doing a splendid Christmas trade, and it is confidently expected that the sales will be far in excess of last year at this time. —*Canadian Dry Goods Review.*



#### Agricultural Education in Ireland.



URNING again to the last Report of the Commissioners of National Education, the following is a résumé of what Mr. Carroll, the Head of the Agricultural Department, states with regard to the position of the National School-farms and School-gardens at the close of 1890.

There were 47 school-farms and 29 school-gardens, compared with 51 and 90 in the previous year, so that in point of numbers instead of increasing they are diminishing. As regards their efficiency, Mr. Carroll states that "there has been a fair amount of progress at these schools; and it is to be hoped that the recently introduced measure of payment of boys belonging to the Agricultural Industrial Class may be productive of increased earnestness on the part of pupils and teachers."

In the previous report the school-farms in the East and West of Ireland were visited, but last year those in Munster are reported on, viz., 2 in Cork, 5 in Kerry, 3 in Clare, 1 in Limerick, and 1 in Waterford.

Of Clonkeen School-farm, Co. Cork, it is reported that it has not been managed with the care and enlightenment desirable, in consequence of which result fees were disallowed. It is situated in the midst of a very industrious population whose farming systems are of a primitive character; a good example of intelligently directed farming, Mr. Carroll states, would be very useful here. The teacher, however, was to spend some time at the Albert Farm, Dublin, to improve his knowledge, after which a hope was expressed that more satisfactory work would be done.

St. Edmonds School-farm, Co. Cork, is next referred to, and it is gratifying to find that it stands well in comparison with others, being amongst the most satisfactory on the list. Mr. Carroll speaks highly of the results, stating that the system of farm management carried out here would show a possible increased return from holdings of the same character as this farm of at least £2 per acre. In looking for an explanation of this highly satisfactory state of things, we find that the patron and the manager of the school give considerable attention to the industrial side of education, and consequently the boys and girls examined by Mr. Carroll had an almost intense interest in the subject of farming and gardening. Here is a good example of a well-managed technical school which one would be glad to see imitated all over Ireland wherever these industrial school-farms are established. The farm at this school was reclaimed from rough, rocky land, but the teacher knows his business thoroughly, and putting heart into the work has made the school a success. The patron of the school backed him up most energetically, so that Mr. Carroll concludes his report by stating that "the teaching of such successful systems of farming to the pupils, and an example such as this set in a district, should have considerable influence upon the future of this country." The pity is, there are not several hundreds of schools like it all over Ireland; the benefit they would confer on the country would be incalculable.

At Glanmore School-farm, Co. Kerry, there is nothing cheering to note. The district is a backward one, and the farming of a primitive character. Yet this is just the place where a well-managed farm would be a bright example all round, but Mr. Carroll is only able to say of it, "There has been fair progress made in improved cultivation of farm and garden, but much remains to be done." The farmers of the district are desperately ignorant, and their children, surrounded by such influences, are with great difficulty taught the use of improved hand implements. As an illustration—it is stated—if the farmers knew how to use the hoe, it alone would make a difference to them of several shillings per acre in cropping.

At Lansdowne, Co. Kerry, a better state of things exists, and an addition has recently been made to the original farm, which, it is stated, is very well cultivated. Mr. Carroll is hopeful that with increased facilities this school will be very useful to the neighbourhood. The progress of the pupils is, however, spoken of with some reserve.

Dineenarragh, Co. Kerry.—The farm here is situated in the midst of a large extent of uncultivated mountain land, and a good system of culture would be productive of real benefit to the district. This is another district where a well-managed school might be productive of the greatest good to the neighbourhood, yet the example is of little benefit, and Mr. Carroll was obliged to notice the teacher that more careful management would be expected. Here is an inefficient technical school in a mountainous district where it is stated progress in agriculture is very slow, yet where attempts at cultivation have been made the results have been very satisfactory. Surely the number of school-farms are small enough without having them inefficiently officered. A school of the kind to be of real value should form a striking contrast with surrounding farms; but where a teacher has not the requisite qualifications and ambition to aim at a high standard it would be most desirable to make a change.

Sneem, Co. Kerry.—The school-farm is situated on a very unpromising site; the locality is described as made up of bog, heath, boulders, and water, and yet it has a fairly dense population. Little is said about the school except that a new teacher has been appointed, and that improvement in the agricultural teaching is expected.

Ballinskelligs, Co. Kerry.—This farm is situated in a district of very poor land, but here, as in many other places, Mr. Carroll speaks of the system of farming as most primitive, and the capabilities of the soil by no means brought out. Hope is again expressed that the school-farm with improved cultivation may be made a good example. It is added respecting the district that "a great deal might be done by way of introducing crops now unknown in the locality, and as the land is better adapted for tillage than pasture, intelligent cultivation should be productive of increased comfort to the people as well as developing the resources of the country." This is all very good, but why not have a bright example of an improved order of things in the locality?

Tubber, Co. Kerry.—Was at one time very unsatisfactory, but is now considerably improved. Parteen, Co. Kerry.—Another small farm, within 3 miles of Limerick. Land is extremely good, and the cultivation of the farm fairly good. Little more is said in either of these cases.

Scropul, Co. Clare.—School-farm fairly managed, but better results are expected, and the teacher was instructed to carry out a more extended system of cropping. Of this district, Mr. Carroll writes there are few where agricultural instruction is more needed, and there are still fewer districts where such a considerable improvement in farming profits might be expected from the adoption of improved methods of farming.

Killacolla, Co. Limerick.—Management of this farm is stated to be fairly satisfactory, but little more can be said. Carriglea, Co. Waterford.—A small farm, and not of much importance as an example, but, further than this, Mr. Carroll was so dissatisfied with the management that he reports unless there is improvement he will be obliged to recommend its removal from the list of agricultural schools.

On the whole, the report regarding the school-farms inspected in 1890 is an unsatisfactory one. It is quite evident the Inspector wishes to say the best he can of them, and encourage the teachers as far as possible, doubtless taking into account the comparatively small remuneration which they get. But granting all this, it is quite evident the standard of proficiency is much below what he would like, and that most of those visited did not fulfil the objects for which they were organised, viz., the practical training of the pupils in the most improved system of agriculture and dairying, and, secondly, as being an example to the neighbouring farmers.

It ought not to be a difficult matter to procure really efficient teachers for the small number of technical school-farms already existing, and we take it that one of the first claims on the fund of £200,000 available for educational purposes in Ireland is to supplement the salaries of these school-farm teachers. If handicraft instruction could be added to the agricultural at these farms it would be of the greatest advantage. Local interest should in every case be stirred up, so that a high standard of proficiency might be aimed at; and an annual exhibition in the district, where prizes for farm and dairy produce might be given, would stimulate the farmers all round to improved methods of husbandry.

**FIBRELIA.**—The Boston *Journal of Commerce* speaks of the proposed use of fibrelia, as it is termed—made from common flax straw—as a substitute for cotton. By the process of production the material referred to is reduced to a short staple, very closely resembling cotton or wool, and, it is claimed,

well adapted for use with either in the manufacture of goods by the machinery now in use, and when so used is said to add materially to the value of the product. It is the opinion of experts who have investigated the matter, that woollen and cotton manufacturers are among those to be specially advantaged by the article, it being adapted readily to their use. The fibrous manufacturers are confined to two processes differing entirely, in that one uses short staples, or cotton and wools, while the other utilises long staples like flax, hemp, silk, and jute. Fibrelia, in a word, is flax, converted from a long staple to a short one, adapted for use on the present cotton and wool machinery.

## Chemicals and Dyes.

(Special Report by Messrs. SADLER & Co., Ltd., Middlesbrough.)

THE Alkali trade is somewhat dull, and the same remark applies to dyes and general chemicals. There is a holiday spirit in the market, and buyers have been endeavouring to use up their old stocks with the old year. Caustic Soda is weaker, and the common opinion prevails that this article will yet go lower, though whether that will increase the use of it, it is doubtful to say. Bleaching Powder is in fairly good request, and at distinctly better price. Soda Ash—both Ammonia and Le Blanc—are weaker, and look like falling lower. In general chemicals there is an extraordinary demand for Oxalic Acid at improving rates. Sulphate of Copper, as well as Tin Salts, are all in better demand, at firmer prices. Ammonia products are weak all round, Sulphate having been sold as low as £10 for spot, and £10 7s. 6d. for forward delivery. In the dye trade, the cheaper prices of Aniline Oil and Aniline Salt have augmented their consumption. Alizarine is also in good request at prices quoted below. It is being largely used for wool-dyeing, giving very satisfactory results compared with other dyes. Tar products continue weak—Benzol, Carboic Acid, Naphthalene, and Common Tar Oils being most difficult of sale at almost any price. Pitch is the one redeeming article, and it is being shipped very largely indeed, and price is stronger. Nitrate of Soda is out of parity with Sulphate of Ammonia, and whether this is due to speculation, or to users preferring the nitrogen from this source rather than Sulphate, we cannot decide. Both articles are in the hands of speculators. Business has been done at following prices:—*Dyes.*—Alizarine, 8½d.; Aniline Oil, 8d.; Aniline Salts, 7d.; Magentas, 2/- to 3/-; Scarlets, 1/3; Chrysoidine, 2/-; Blues, from 3/-; Picric Acid, 10½d. *Ammonias.*—Liquid Ammonia, 1½d.; Carbonate of Ammonia, 3½d.; Muriate of Ammonia, £18 to £25; Sulphate of Ammonia, £10. *Alkalies.*—Bicarbonate of Soda, £8; Caustic Soda, £11 2s. 6d.; Soda Ash, 1½d.; Caustic Potash, £19; Bichromate of Soda, 2½d. less 10%. *Sundries.*—Tartaric Acid, 1/6; Citric Acid, 2/-; Tin Salts, 6d.; Oxalic Acid, 3½d.; Sulphate of Copper, £17; Bleaching Powder, £8; Borax, £29; Nitrate of Soda, £9; Carbolic Crystals, 6d.

## Selected List of Applications for Patents relating to Textile Fabrics.

Compiled from the Official Records, by Messrs. W. P. THOMPSON & Co., Patent Agents, of 6, Bank Street, Manchester; 6, Lord Street, Liverpool; and 233, High Holborn, London, W.C.

G. E. DONISTHORPE and T. BURROWS, London, No. 20,509.—"Improvements in machines for combing wool, flax, tow, and other like fibrous material." 25th November, 1891.

S. FRAZER, Manchester, No. 20,673.—"Improvements in certain parts of frames for spinning flax and similar fibres." 27th November, 1891.

J. P. STRANGMAN, London, No. 21,725.—"Improvements in means for applying liquid to rovings in spinning flax and other vegetable fibres." 11th December, 1891.

### PATENTS COMPLETED.

The specifications of the following patents have been printed and published during the month, and copies thereof may now be obtained at the prices annexed (which include postage):—

1891.

H. OTTO, Germany, No. 1,111.—"Improvements in shuttle stop-rod tension devices for looms." 21st January, 1901.

C. THOMPSON, Baildon, Yorks, No. 1,326.—"Improvements in shuttle-checking and loose-reed apparatus for looms." 24th January, 1901.

A. C. ROBERTSON, R. S. CHALMERS, and J. L. S. LYON, Dundee, No. 1,383.—"Improvements in spinning frames." 26th January, 8d.

E. C. MARC, Paris, No. 7,500.—"Improvements in machinery for obtaining fibrous material from ramie and other plants." 30th April, 10d.

H. H. LAKE, London (communicated by J. S. Macfarlane, Connecticut, United States of America), No. 16,717.—"Improvements in thread tension devices for spinning or twisting machines." 1st October, 8d.

A. E. ELLINWOOD, Ohio, U.S.A., No. 17,429.—"Improvements in machinery for preparing and cleaning the stalks of fibrous plants for the purpose of obtaining fibres therefrom." 13th October, 1/1.

### LIST OF GERMAN APPLICATIONS.

ELSÄSSISCHE MASCHINENBAU-GESELLSCHAFT, Mülhausen, No. 3,246e.—"Improvements in the Heilmann combing machine." 1st October, 1891.

ARTHUR B. CROSSLEY, Halifax, Yorks, No. 3,588c.—"Improved combing machine for fibrous materials." 27th January, 1891.

A. W. BAR & Co., Gschopau, Saxony, No. 17,305E.—"Shuttle protector for looms." 14th November, 1890.

EDMUND C. MARC, Paris, No. 8,062M.—"Improved arrangement for separating the fibres of ramie and the like material." 28th April, 1891.

L. PHILIPP MEYER, Erlenbach, near Heilbronn, No. 7,951M.—"Improved French circular loom." 17th March, 1891.

C. TERROT, Cannstatt, Württemberg, No. 3,174r.—"Improved French circular loom with central thread regulator." 1st August, 1891.

MAX KEMMERICH, Düsseldorf, No. 8,927k.—"Automatic card-beating machine." 4th August, 1891.