Machinery and Appliances.

THE PREPARATION AND SPINNING OF BRANCHED OR WASTE YARNS.—I.

One great feature of our modern industrial systems and which distinguishes them from the crude methods of manufacturing in olden times is the rigid economy on which they are conducted. In early days this was not the case, as the aim and end was principally to secure a good article irrespective of the cost of production. Profits then were very different from those that can be obtained now, and this was one cause of the prevailing disregard of the cost of production. But the rapidity with which money was made soon put an end to this wasteful method, as the lucky fortune coursed of early manufacturing times, not knowing what better to do with the money that they made, re-invested it in extending their means of production in that which had already yielded them their wealth. Hence arose competition which every year from the early part of the present century until to-day has been growing lesser, and largely from the operation of the same cause. Diminishing profits induced increased attention to the means of economical production, machinery was improved and rendered increasingly automatic; thus reducing the labour cost. The cost of power driving was successively reduced to dimensions that would surprise the manufacturers of half a century ago. Correspondingly with this, increased attention was given to the waste or by-products of the various processes. Many men who cannot yet be called old, will well remember how, in close proximity to the cotton mills of forty years ago, great stacks of waste from the openers and scutchers of the mills were formed. These consisted of the dust, droppings, and other matters, including some of the best fibre, were carried out wholesale and stacked in the manner alluded to in order that their contents might decompose before being carted away upon the land as manure. Many a fortune has been thus disposed of for want of better knowledge of the means of extracting the valuable material, and its application to useful purposes when obtained. But those days are gone by never to return. Most of the cotton wastes of the time to which we refer found its way to the vat of the paper maker. Gradually, however, it dawned upon various people that a better use could be found for most of it and attempts were made to work it up into useful fabrics, necessity of a lower character than those to which the material it had been abstracted from was devoted. Such is a brief sketch of the conditions and causes which led to the development of an interesting though subordinate branch of the cotton trade, that of the production and manufacture of waste yarns and cloths.

With the enormous growth of the cotton trade, there has been, in spite of the most rigid economy and the use of the best appliances, a considerable increase in the production of inevitable waste. Since the discovery of means of rendering it useful this has not been as before all loss. Its manufacture has been steadily growing in importance, so much so that it has been deemed quite great enough to engage the attention of our leading machinists and has led them to endeavour to make machinery for the special use of this branch, of equal excellence to that employed in the manufacture of pure cotton.

Amongst the firms who have taken up this matter is that of Messrs. Platt Brothers and
Company, Limited, of Oldham. Their installation of Barchest or waist yarn machinery is the most interesting and complete that we have had the privilege of inspecting. It is especially designed for working up waste cotton of almost every kind, such as bowings, cardroom sawings, rollers, flat and mule waste, damaged cottons and cottons of very short staple. For a long time the waste cotton trade has paid, and even now pays far too little regard to these materials, and it is usually, at least to a large extent, bought for export and shipped abroad to Belgium and Holland, where it constitutes the raw material, out of which a great variety of cheap and useful goods are manufactured.

The low prices which articles produced from this class of material fetch in the market makes it essential that only a minimum amount should be spent upon the cost of production. This renders it necessary that the machinery employed should turn out a good quantity with the least possible attendant labour or attention. Mears, Platt Brothers have taken all these matters into consideration in the construction of their waist yarn manufacturing machinery. The series of machines include the following, all of which are especially manufactured to serve their particular purposes. First, the Oldham Willow; second, the Ashworth with podel reciprocating breaker card; Derby doubler, finishing card with condenser attachment, with the improved Bollette steel tape, or, if preferred, the improved Sachische leather tape systems, and a specially constructed wireร้านค้า machine. These machines constitute this remarkable installation, a description of which we propose to lay before our readers.

THE OLDHAM WILLOW.

This is a machine about which it is not necessary to say much. It is the mechanical substitute for the old process of beating cotton with willow wands upon a netting in order to shake out the dust and dirt which fell through the meshes of the net, or the closely set grate bars originally used. Possibly, judging from its name, it may have originally been invented and introduced in this town from which it derives its name. The mechanical Willow usually consists of a cylinder about 40 inches in diameter, and 40 inches wide across the face. In the case of this machine it is divided into three chambers, each furnished with an independent condenser, and rests in bearings in the framework. Fitted on and extending across its periphery are several rows of strong teeth or blunt spikes. A semi-circular casing internally furnished with rows of similar spikes covers the upper part of this cylinder. The lower portion is enclosed by a wire grid constructed in two parts and hinged together. The back portion of this grid is fixed to the frame and the front is free to move up and down in an opening in the front of the machine. It is also furnished with an exhaust fan. The material, on being fed to the machine, is dashed against the front face of the casing, by which its matted fibres are loosened, sand, dust, and foreign matters are freed from it and fall through the grid into a cavity below, or are drawn away by the fan and discharged into the air. The material is left in this machine until it is judged to be sufficiently cleaned and cleansed.

IMPROVED SCOURER WITH PIANO FEED.

Cotton waste sweepings, and so on, owing to the gross and dirt with which they are often loaded, are not as tractable to deal with as pure cottons. Much more difficulty is experienced in forming them into a level lay, and where they have necessitated special modifications of the scourer with a view to overcoming the difficulty, it is

TEXTILE MERCURY.

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The textile factories of the firm, E. Reinhold, Meirne (Saxony), street work, claiming an advance of wages of 15 to 29 per cent.

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A Vienna correspondent gives a favorable account of the condition of the Austrian textile industry, which is at present standing normally. An opinion may be formed of the position of the trade when it is stated that, in Austria, the imports of raw jute amounted to 225,154 quintals. Two years previously they were only 169,901 quintals; and they reached 200,719 quintals; and in 1990 they reached 200,000 quintals.

THE SWISS CORNING IRON INDUSTRY.—A Paris correspondent writes a very disheartening account of the condition of the Polish iron industry in Switzerland. It appears that there has been a greater decline in the consumption of this product; while its price has fallen so low that it can scarcely become much less; and manufacturers are beginning to leave off the cultivation of this industry, which has been so prosperous. The last official reports of the government of Mr. George Thorey, Falkenstein, has been converted into a joint stock company, with a capital of one million francs. Up to this day the German Government has not yet ordered its resumption to take part at the Industrial Conference, to be held in Berlin.

Foreign Correspondence, News, and Notes.

TEXTILE MATTERS IN GERMANY. [From our own Correspondent.]

ELBERFELD, June 25th, 1899.

It would seem as if the stirring I spoke of in my last letter, was caused by some oft-cited Berlin and Vienna papers, perhaps because their masters again want more clerks, or more money for arms; this being generally the way of making the people 'bite the sour apple,' as the Germans say; or, may be, in order to influence the coming elections for the Reichstag. The military wants a screw without end, the one thing only, which is wanting at the moment, is the love, or, as it may be better termed, the stupidity of the people to bear those enormous and always increasing taxes. The great strike of the colliers' strike is still occupying the minds of the Prussian leading men, not so much on account of the fiscal consequences to come, as of what would happen in case of a mobilisation of the army, if there happened to be a strike, and the locomotives (the one care for the readiness of the army being always the most serious precaution in Prussia) Immense stores of coal are, therefore, being laid in on fortresses, great railway centres, etc. At the same time, the most audacious projects are being made to avoid strikes in the future. As for instance, one of the Government papers argues seriously that strikes are neither more nor less than a violence, an unlawful exaction, and therefore, amenable to the penal law. A paragraph may well be added to the latter, that the end that strikes are formally forbidden, and will be punished by the criminal law.

The textile workmen of Elberfeld demand an advance of wages of 20 per cent., and reduction of working time to nine hours. These claims being considered exaggerated by the masters, it seems inevitable. The cotton, wool, and worsted industries of Alasco are now working at orders received for the greatest part from the Old German countries. Until recently those industries had their principal markets in the English and American markets; but since the rigorous measures taken by the German authorities in respect of the French frontier, etc., it appears to be their intention now to try working in a market of Old German countries. The demand is quite to the taste of the Old German manufacturers, as the textile industries of Alasco are already developed, and march in advance of those of the Old countries.

One of the principal woolen manufacturers stated that his firm had now to be satisfied with a profit of 10 or 15 per cent. for the year, and even this large profit to be made, some foreign and native manufacturers are making money, and some of them have received orders for the season of next year.