Machinery and Appliances.

IMPROVED PATENT STOP-MOTION TWISTING MACHINE.

MAKERS: MESSRS. G. H. HOLDEN AND CO., MANCHESTER.

Self-stopping winding and twisting machines, though known and extensively used in several of the textile industries, are now of comparatively recent introduction to the flax, hemp, and jute trades. These trades did not, at first, take kindly to them, and hence at present have some leeway to make up in the adoption of the most improved appliances. Perhaps, as first brought out, the peculiar requirements of these trades were not adequately considered, thereby causing the machines to be less acceptable than they otherwise might have been. But, be this as it may, such is not the case at the present moment; all their special needs and purposes have been and are being carefully considered.

Amongst those who have devoted a great deal of attention to providing for the requirements of these branches of the textile industries may be mentioned the firm of Messrs. G. H. Holden and Co., successors to the late firm of Thomas Unsworth and Company, Limited. Messrs. Holden have thoroughly overhauled and improved their various types of machines since acquiring the patent rights of the company just mentioned.

We have this week had the privilege of inspecting a fine new twisting machine built for a firm in the jute trade, and embodying their latest improvements. It contained 60 spindles, carrying a bobbin of 3" x 2", and was twisting 4 ends of 6 lbs. yarn, putting in about 3 turns per inch. The work produced was excellent.

The general aspects of this machine are shown in the accompanying illustration; the details, however, are not correct, as many of these have been introduced or modified so recently as not yet to have allowed time for the preparation of a new illustration. The difference, however, we can easily point out. As will be seen, the yarn is arranged in the reel, on bobbin as shown, whence it descends, and immediately passes through detector drop wires, which instantly, on the breaking of a thread or the exhaustion of a bobbin, stop the machine. These wires have a broad surface where they rest upon the yarn, and this prevents any roughening or fraying of the yarn surfaces passing through them. The yarn next goes beneath and around about three-quarters of the fluted draw roller, when it returns over a pin, and over the top of the second draw roller. The arrangement of these rollers is such that the greater the tension upon the material the greater is the force of the nip between them. From the second roller, the yarn vertically descends to the eye of the flyer, through the eye of which it passes, and thence around the log to and upon the bobbin. Such is a brief description of the course of the material in its passage through the machine.

We may now proceed to describe the salient points and improvements introduced into this machine. These consist mainly in the arrangements for driving and stopping the spindles. The driving shaft is mounted as usual in the lower cross-axle of the frame, and carries a driving pulley for each pair of spindles. One strap pin, or pin, broad drives two spindles, the ones opposite each other in the respective sides of the machine. The strap in its course passes over a small fixed carrier pulley and a second swinging pulley which acts as a tension adjuster keeping the strap at a uniform tightness. As all the spindles are driven on this arrangement, which gives great driving power, a perfectly uniform tension can be obtained upon the respective strands which fasten a uniform amount of twist being put into the yarn. The additional force thus obtained for the spindle also permits of the use of a correspondingly heavy drag, the advantage of which will be obvious in laying the strands well together. The spindle, we may observe, has four bearings: the footbear, the fixed bolster, and the traverse rail, whilst the fourth is not shown in the accompanying illustration; it is a projection brought over from a bracket which fits upon the top of the spindle. This gives greater steadiness to the spindle and enables it to run much more quickly than could otherwise be the case. The spindle itself is of the usual construction, but is supplied with a new patent claw clutch, the invention of Messrs. Holden and Ashworth. It is simple, perfectly needless, giving a very
positive start and stop, and is in every respect thoroughly efficient. The draw rollers are driven from the first shaft through trains of gearing and not by means of pulleys from straps as shown in the drawing, this being one of the improvements just introduced. A positive drive is thus obtained, which in all cases where practicable may be regarded as preferable to one that is not.

The introduction of this type of machine into the heavy flax textile industries, if it has not already done so, will soon render its advantage obvious, as it has done in other trades. These may be enumerated as follows. First on the breakthrough of a strain or the exhaustion of a bobbin, its detection does not depend upon the carefulness or quick observation of the girl in charge, as the spindle is instantly automatically stopped before the end has passed above three or four inches towards the flyer. A girl may thus mind a much larger number of spindles than on the old plan, whilst the work is in many respects much superior, as nearly all possibility of breakage is obviated.

Any communication on the subject of this machine may be addressed to Messrs. Holden and Co., as above.

SPENCER'S PATENT HIGH PRESSURE AND LOW WATER SAFETY VALVE.

MAKER: Mr. S. Farron, Britannia Brass Works, Ashton-under-Lyne.

The importance of a thoroughly reliable safety valve as an attachment to a steam boiler is known to all steam users. Many descriptions of these valves have, at different times, been devised and introduced to notice; and it may be said that almost as many have proved defective in one point or another. Some are too complicated, and, in consequence, are liable to derangement; others may corrode in some of their working parts, and so stick fast and become unreliable at a critical moment when it is of life and death importance they should do their duty. The bulk of them are at all times, through accessibility, liable to be tampered with by persons, often those ignorant of the power of steam, or perhaps maliciously inclined, so that there is ample room for the ingenuity of the ignoramus to be displayed in overcoming or obviating these defects. Accordingly, there are continued attempts to improve the means of securing safety, as boiler explosions are an unpleasant contingency in the use of steam.

We have pleasure in drawing the attention of our readers, most of whom are interested directly in means of obtaining greater security in this respect, to a simple and effective high pressure and low water safety valve invented and patented by Mr. Spencer, and the sole maker and licence of which is Mr. S. Farron, Britannia Brass Works, Ashton-under-Lyne. In this valve the principal object of the inventor has been to reduce the working parts to a minimum number, and so to obviate a proportionate extent the risks of sticking and other forms of derangement when there is a danger to the safety of those who would be tampered with by persons, often ignorant of the power of steam, or perhaps maliciously inclined.

SPENCER'S PATENT HIGH STEAM AND LOW WATER SAFETY VALVE.—Mr. S. Farron, Ashton-under-Lyne.

CARBONISING AND DRYING MACHINE FOR WOOL AND OTHER FIBROUS MATERIALS.

Hitherto the various machines and apparatus for the carbonising of wool have had one great disadvantage, viz., that the material to be carbonised is treated in a state of rest, that is to say without being moved and turned about. By this the carbonisation is, on the one hand, not very uniform, the heat not touching and penetrating alike to all the material, while the right temperature is let into the heating apparatus in the lower part of the machine. The wool, which has previously been dried in the machine heretofore described, or any other drying machine, is now laid in the filling box. Fig. 2, where it is raised by the conducting board b, which is furnished with pegs or the like, and closed on all sides, and from there is carried to the roller c in the direction indicated by the arrows. This roller c, revolving considerably
THE TEXTILE MERCURY.

News in Brief,
FROM LOCAL CORRESPONDENTS AND CONTEMPORARIES.

ENGLAND.

Borough.

The Darwen Flax and Jute Works will be closed from Saturday, the 1st May, until Thursday, the 7th May, in order that some alterations may be made in the connection with the erection of a new company.

Blackburn.

On Saturday, small collections of a penny per pound were made throughout the Blackburn district towards a fund opened as a memorial to the late Stephen Jones, medical officer for Blackburn, whose position was recently vacated by Emerson, against excessive steam in working sheds. The Northern Counties Amalgamation, recognising the service Dr. Stephen Jones rendered to the Lancashire weavers, are giving the collection every support. The fund already exceeds £250.

Bolton.

The Bolton Co-operative Society, Ltd., at their last quarterly meeting, voted £100 towards the Technical School scheme, and also empowered the educational committee to contribute £250 quarter out of the money voted for educational purposes in connection with the Technical Instruction Society.

This appears to be little progress of an early settlement of the strike of spinners at Marsden. Joseph Gooch and Joseph de la Motte, who are a few days' hands working, and the employers are advertising for 50 more. The weavers have pickets and are not doing much, and a few policemen are also near to prevent any disturbance. Beds have been put up in the mills for the men when they turn off.

Bradford.

Mr. Holland Edge, a well-known webstuffer, lately deceased, has left a widow, a Yorkshire charley, about £7,000. He accumulated a considerable fortune, most of which he had given away previously.

The plash is now being shown at the Paris Exhibition by Messrs. Bright Brothers, of Rochdale, and also those by Sir Titus Balfour, Ltd., and others, are a few hands working, and the employers are advertising for 50 more. The weavers have pickets and are not doing much, and a few policemen are also near to prevent any disturbance. Beds have been put up in the mills for the men when they turn off.

Church.

The Hepper and Ingatman Co., have posted a notice that the mill will be closed in a fortnight. This is a considerable notice of leaving by the card-room hands.

The Glynne Spinning and Manufacturing Co., Church, have put the Darwen Industrial Mill upon four weeks' notice. This is a weaving shed containing about 700 looms.

Mr. John Haworth, manufacturer, Brokside, Church, is intending stopping the new portion of his weaving shed, and the manufacturer is a considerable shed containing about 700 looms.

Darwen.

Probable of the wall of the late Mr. William Haynes Bankes, of Hoddled Hall, Over Darwen, Lane, and 99, Easton-square, J.P., has been granted. The personality is £12,500 in 40.

FARNSWORTH.

The mills of Messrs. Thomas Kirkham and Son, manufacturers, have been closed all this week while the old boiler is being taken out and a new one put in.

A serious boiler accident occurred on Wednesday afternoon at the Farnworth Works of Messrs. Long and Hindley, Long Causeway, whereby a named Robert Pearson, through being too venturesome, was badly injured and is now in the Emyrsfield Hospital in a precarious state. He was looking up the fire when the descending cage gave way.

Heywood.

The Mutual Mill Spinning Co. are putting in several new ring frames.

Mr. James Taylor has added some extra cardrooms machinery to meet the increased requirements of his new ring frames.

Huddersfield.

Messrs. George Haigh and Sons, woollen manufacturers, of Siddalstone, near Huddersfield, are declining business.

Messrs. V. Vickerman and Son, Limited, hold their first meeting of shareholders on the 18th inst., and declared a dividend of 6 per cent., carrying £7,000 to reserve fund, Messrs. A. Armitage and Co., of Albany Mills, Huddersfield, have entered into a partnership with Mr. William Glendinning, late manager for George Crook and Sons, and Taylor and Littlewood, trading under the name of Armitage and Glendinning. They have taken over Crook House Mills, and built a large weaving shed for the manufacturer of fancy worsted. Macclesfield.

The fabrics woven by the students of the Technical School for the City and Guilds Examinations in woven goods include a few exceedingly beautiful examples of the designer's art.

Manchester.

Mr. Charles Behrens (Sir Jacob Behrens and Sons, of 385, Hanley Road, Liverpool) has taken charge of the Manchester Commercial of this city.

We are informed that Mr. John Haskett, who has been for some time employed at the firm of J. C. Cope, a yarn agent, has commenced business on his own account, and has established offices in single and double yarns for both the home and foreign markets, and will be pleased to receive orders for the purchase of the latter, and is to be trusted to proceed with business in a manner suitably to his interests.

The prospectus will be, understood, shortly be issued of a new company. The Banham Mills Co., Ltd., is formed for the purpose of taking over the mills of the well-known firm of Henry Banham and Sons, warehousemen, manufacturers of York Street, Manchester; of St. Albans, Accrington, and Disley. The intended partners Banham now stand in the front rank both as manufacturers and producers.

Mr. James Arthur Birch's will has been proved. The testator, who died on March 19th last of Blackpool, bequeathed to his wife, Mrs. Anna Maria Birch an annuity of £300 during her widowhood, and directs that facilities may be given by the executors to his son, Mr. Arthur Birch, and his nephew, Mr. Michael J. Higginson, to carry on his business as a yarn manufacturer, and to his two daughters he leaves all his property, subject to his wife's annuity, as to his said son.

Last week was exceptionally busy one amongst the Manchester home-trade, as the city was full of buyers attending the two great sales, the warehouses of Messrs. Rylands and Sons, Ltd., and the stock of Messrs. J. A. Hall and Co., Ltd., and Messrs. T. Osman, Ltd., and the latter firm were well known as flannel and blanket manufacturers, and their mills are situated at St. Peter's and Binstead Church, Bury. For many years Messrs. Osman have been looked upon as one of the most representative firms in their particular branch, and for a long time they have occupied their premises in Dalestreet, Manchester, an extensive wholesale business.

A representative meeting of the Manchester Lace Manufacturers Association, was held last week at the George Hotel, when the question of the wages paid included a discussion whether a new code should be framed.

The Rosacre Mill Co., have given out orders for the covering of several double cards with baled cotton and damask styles.

The position of carder at Wham Mill, vacant by the acceptance of the same position at Huyton Mill, has been filled by Mr. Joseph Taylor, formerly a card-room jobber at Wham Mill.