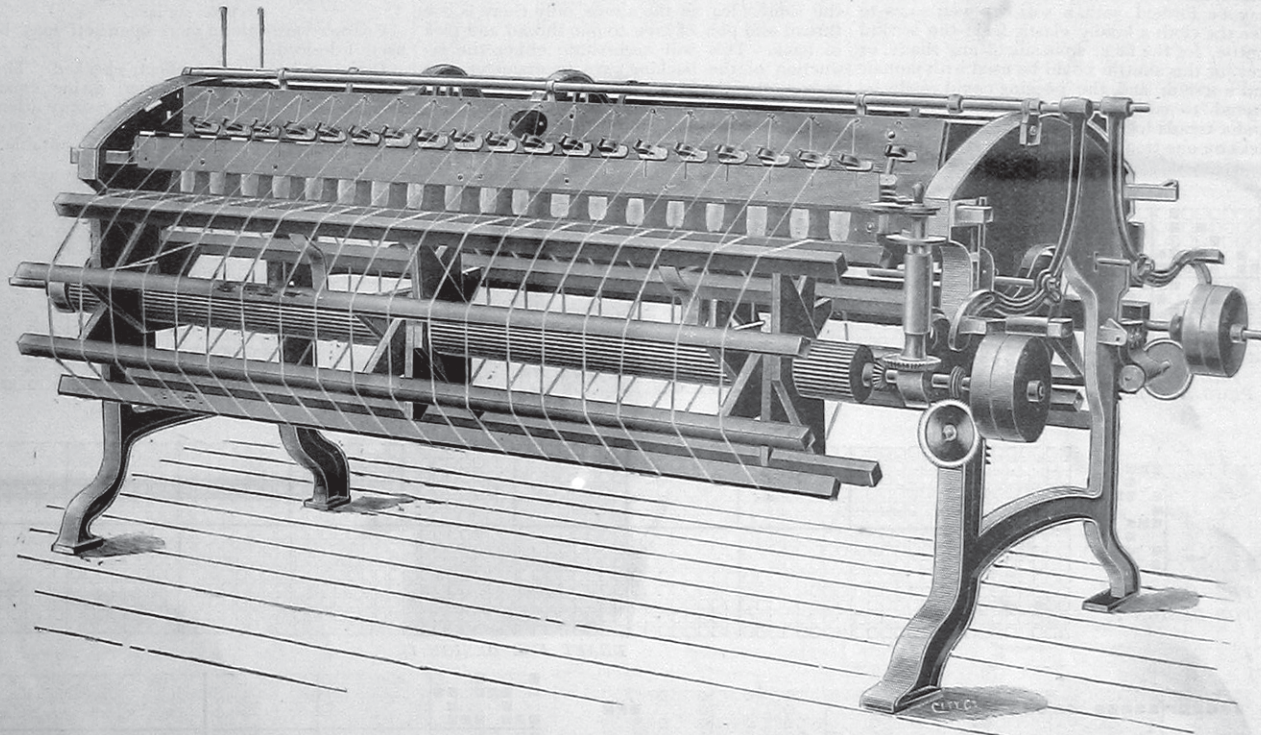


Machinery and Appliances.

IMPROVED RING BOBBIN REEL.

MR. J. H. STOTT, WARDLEWORTH IRONWORKS, ROCHDALE.

As we have previously observed when called upon to describe an improvement in winding machinery, the introduction of the ring frame and the changes made in spinning during the last few years have had considerable influence upon the subsidiary processes of winding and reeling. The machinery for these analogous processes, whilst undergoing the natural evolution of mechanical development, has also been modified to meet the requirements of changes in the spinning process.



IMPROVED REEL.—MR. J. H. STOTT, ROCHDALE.

We have pleasure in drawing the attention of our readers to the most recent improvements placed upon the market in this department, namely, an improved reeling machine, which is illustrated herewith. In winding from ring bobbins experience has shewn that the yarn comes off more freely than from cops, hence there has been a greater tendency for the yarn to 'kink' or run into snarls. This, of course, is a drawback in all cases, though in some it is much more serious than in others. Various devices have been resorted to for the purpose of overcoming this, such as brushes, tension wires, and so on. In this machine Mr. Stott has hit upon an ingenious plan, namely, that of utilising the weight of the bobbin itself for the purpose of obtaining a variable tension, which can be adjusted with great facility to suit the requirements of the strength and counts of yarn in use. This we will proceed to explain.

In the centre of the machine is arranged a capacious bobbin box, as shewn, and to the top of each side of this is hinged a board. The front of this board is furnished with a number of small recessed brackets for the reception of the bobbins, which drop into the small recesses. The opposite end or top of the bobbin enters into a corresponding bracket, which is inter-

nally coned so as to fit in a loose way, and to form a cap. This board thus forms a bank, and may properly be so called. At the back there are several segmental racks, by means of which it can be arranged at any required inclination. When lowered to the vertical position the set of bobbins stand upright, and their threads are drawn off without any drag. If a drag be required the bottom of the board is drawn a little forward, which causes the top of the bobbin to incline slightly against the interior of the cone cap. As the thread is being drawn off it has therefore to lift the top of the bobbin very slightly from this position in order to get clear. The constant recurrence of this forms the drag. If more is required the bobbin bank is drawn further forward, and this can be repeated according to requirement until the board is brought to nearly a horizontal position, when of course the maximum drag is

it only needs to be added that it is constructed with the care and finish customary to the work turned out from Mr. Stott's establishment. Any further particulars may be obtained on application as above.

THE CITY AND GUILDS OF LONDON INSTITUTE.
—The position of Examiner in Cotton Spinning for the City and Guilds of London Institute for the Promotion of Technical Education, which has been held for the past five or six years by Mr. Richard Marsden, the author of "Cotton Spinning: its Development, Principles, and Practice," has just been resigned by him owing to the pressure of other engagements. The committee of the institute tendered to him through Sir Philip Magnus their cordial thanks for the valuable services he had rendered, and on his nomination have appointed Mr. C. P. Brooks, of Manchester, to the vacant post. The qualifications of Mr. Brooks are of a high class. He for several years conducted more than one class very successfully, and took the Honours Medal during that time. He is practically connected with the trade, being at the present time manager of a limited company in the neighbourhood of Manchester.

obtained. It will be seen from this that any amount of drag can be obtained, from nothing when the bobbin is standing vertically, to all that can be got from the yarn having to lift one end from a horizontal state in order to get clear. This, on examination, will be found to give a considerable range of drag, quite as much, indeed, as ordinary requirements demand. Incorporated in this reel is another improvement. In the ordinary construction the axle of the reel is composed of a plain hollow tin tube, so made to avoid the great weight of a solid iron one. In long reels it is of necessity composed of a number of sections usually soldered together. In all cases, but especially in that of long ones, the revolution of the reel generates so much centrifugal force that the reel bulges in the middle portion of its length, with the result that the sections are apt to work loose at the joints and break. To remove this weakness, Mr. Stott has substituted a corrugated hollow tin cylinder for the plain one commonly in use. It is unnecessary to go into any demonstration of the fact that greatly increased strength is obtained from this change, and a greater durability. This improvement is clearly shewn in our illustration.

These are the novel features of this reel, and

IMPROVED AMERICAN SHUTTLE.



An American shuttle maker, Mr. S. A. Dudley, has just introduced a speciality, for which great merit is claimed. He denominates it a "double catch shuttle." It is a pinn shuttle, and the claim is advanced that it is the only double outside catch shuttle made and that it has many advantages. It is so constructed that it is impossible for the bobbin to knock off or lift up while the shuttle is in motion, that this double catch always keeps the bobbin pointing directly to the eye of the needle, and that it prevents the rims splitting off bobbins. Another advantage of this outside catch is that it is adjustable to different sized bobbin heads in the same shuttle. Its simplicity of construction is such that it never gets out of repair.