Machinery and Appliances.

"THE STOCKING-KNITTER."

Our readers will remember that about a month ago we drew the attention of the hosery trades of Leicestershire, Derbyshire, and Nottinghamshire to the fact that there was some prospect of their trade being undermined to a considerable extent by the introduction of a branch of industry which was making its appearance in almost every centre of our population. This was that of "The Stocking-knitter." As then observed, it was an innovation upon the ordinary hosery industry which is spreading rapidly, and that described in the market report, it is meant not only to support knitters, but knitters of every description of knitted articles that can be produced upon the improved knitting machines being so extensively advertised and pushed amongst drapers and other retail dealers all over the country. We further drew attention to the fact that in the large Lambshead and Yorkshire manufacturing towns establishments were arising of very considerable magnitude in which this industry was carried on. We have reason to believe that our article opened the eyes of many engaged in the manufacture on a large scale in the counties named, to the magnitude of the danger that was threatening them, and that it may possibly result in steps being taken which may, to a certain extent, obviate the mischief. Still, it is a movement which is destined to go on, as the knitting machines, to which we refer, enable small shopkeepers and others to utilise a considerable amount of time that has hitherto been wasted. The processes of distribution of manufactured goods in this country are conducted in such a manner as to leave half the time of the people engaged in them unoccupied. Any means of reducing this loss will therefore be gladly welcomed and are bound to prove acceptable.

The sewing machine was one of the earliest and most successful inventions which was utilised for this purpose. The gradual improvement of the knitting machine has rendered it so perfect that it has come to be a second assistant to the industry. The making of an equal valued machine has been necessary. Since publishing the article named, we have had knowledge of several machines employed for this purpose. By way of a general answer to our correspondents, and for the information of others, we describe and illustrate one or two machines that have been most extensively adopted for the purpose. These machines are made by the Harrison Knitting Machine Company, Portland-street, Manchester, which makes machines of various other types as well as those illustrated herewith. Our first illustration, Fig. 1, shows a new patent knitting machine, which works by steam power or hand. It has four cams parallel with each other, thus enabling two rows of knitting to be made by our turn of the crank, and so producing double the quantity of work that can be obtained from an ordinary single cane machine. It is made with a self-acting stop motion for stopping automatically at the fashionings. The machine is also fitted with an automatic making arrangement, whereby the whole range of the fancy devices that the machine produces can be made without repeatedly stopping it. It can be fitted with an electric stop motion. It makes about 90 courses of knitting per minute, thus saving both time and labour, whilst assuring greater correctness than if entirely dependent upon the skill and care of the worker. The yarns are so fitted that a fabric with cotton back and with a cotton or wool front can be made; this also works automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. 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Our next illustration, Fig. 2, gives another type of "The Patent Knitter," having 116 needles, 9000 needles in the inch. The machine knits all sizes of stockings with single or double yarns for feet and toes, plain or ribbed, in wool, silk, or cotton, without any change of the needles. Petticoats, caps, shawls, gloves, and cardigans in fancy and artistic patterns can be produced upon it, as it works five entirely distinct systems at the same time and is durable and simple in construction, and has a high rate of speed, knitting 16 pairs of full finished stockings per hour. The work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically. This part of the invention will be found a valuable improvement, enabling garments to be made, combining all the strength of pure woolen with the softness of cotton, which are specially useful in cases of super sensibility of the skin. The machines are adapted for under vests, pants, and for knitting on any material the body can be made; the work is done automatically.
THE TEXTILE MERCURY.

On a recent visit we were shown knitted fabrics, both plain and fancy, that proved very demonstratively the great advance that has been made in the construction and improvement of the knitting machines, and in its increased adaptability for domestic use and forms by manufacturers with a class of labour that can only ideally be demonstrated and realized. We refer to that of children and girls.

Those of our readers who desire further information will, no doubt, be able to obtain the same on application to the address given above.

IMPROVEMENT OF THE BOILETTE CONDENSER.

AN ARRANGEMENT FOR INCREASING THE ECONOMY.

The sectional cut herewith given illustrates an improvement that has just been introduced to the rubbing motion of the well-known Boilette condenser, it is said with the effect of largely increasing its efficiency, improving the quality of the work produced, and permitting the manipulation of a wider variety of material.

It has been alleged that the original single-apse machine, on account of having only two wheels while the rubbing drums, does not give the amount of rubbing that is desirable. To overcome this objection, four rubbing asps are now introduced to the improved machine, in place of two. This permits of the performance of a greater quantity of work, and produces work of a much more even character than was possible before.

The exact nature of the change will be readily perceived in the illustration by those who are familiar with the details of the machine. The asps revolving around the rolls $C$ and $H$ have been placed in a plane four where formerly only two were employed.

It is stated that the improvement is so great that the builders guarantee to give this manner of rubbing as can be obtained by an ordinary fifteen-rollo rub-motion and more than twice as well as the finer grades of yarn. The improved machine is sufficiently recommended for every class of work, but especially for medium and fine grades of yarn and for cotton mixtures.

Another improvement introduced into the Boilette condenser is their new eccentric motion, which enables it to run at much greater speed than was possible in the old form, thus giving all the rubbing demanded for any grade of stock, a wool washing apparatus can be counted. And yet good Americans expect to go to Paris when they die.

THE EXHIBITION OF RIME FABRICS IN PARIS.—The programmes of the composition of machines for the preparation of silk fibres may be seen on examination at the Government Institute of Trade. It is the same as that for the exhibition last year.

UNITED STATES GOVERNMENT FORMULA FOR MAKING WASHING SOAP.—The remarkable whiteness of the lighthouses, beacons and keepers' dwellings in the United States is thus explained:—The material used is simply sulphate of soda and pure, the Government using as little as possible, and indeed to the extent of making a whitewash that was properly made and applied given a white that does not easily wash or rub off. To ten parts of fresh liquid soap add one part of the best hydraulic cement. Mix well with salt water and apply quite thin. It is quite possible this might be found very suitable for our mills and washing sheds.

News in Brief.

ENGLAND.

Ashton-under-Lyne. The main spur wheel and pinion belonging to the Great Hope engine are faulty, and are being replaced at Wakes the third week in August.

Bury. The Bremdall Industrial Mill Co., Limited, (Ireland Mill,) are putting up a new ring frame, which is being supplied by Messrs. Browne and Booth, of Birmingham.

Bolton. Two or three firms have been prosecuted this week for smoke nuisance.

Committee are taking full advantage of the powers conferred on them to prevent a recurrence of the pollution of the atmospheres by smoke.

Gillibrand, Horrocks, Crompton and Co. (of Preston, Bolton, &c.), have given notice of short time in accordance with the resolution of manufacturers at a meeting held in Manchester last week. No other mills in this district have given notice, as yet.

The dispute still continues at Mesnes, Crook's. Several of the new hands have been on strike for the last two or three weeks, but there seems no prospect of the settlement of all the negotiations being suspended between the parties concerned. Twenty-two pairs of mules are at work.

Halifax. The New Victoria Spinning Company have placed their order for ring frames with Messrs. Lord Bros., of Todmorden.

Farnworth. A presentation of several articles as tokens of esteem was made on Wednesday evening by Mr. James Dawson, weaver's overlocker, who is this week leaving the employ of Messrs. S. P. Armitage and Co., at their No. 2 mill. He goes to a situation at Harpley.

Macclesfield are commencing to run short time this week. As an outcome of the meeting of masters held in Manchester last week, Messrs. Horrocks, Crompton and Co. have given notice to run only three days per week. About 700 hands are employed at their Farnworth mill.

Halifax. A meeting of the cotton doublets of Halifax and district, was held on Saturday last, at the White Swan Hotel, with a view to continue the improvements made last year, and to improve the present unufactory condition of their trade.

Heywood. The project for building a 100,000-spindle mill is being pushed forward very earnestly, and the company is very likely to be soon formed. The proposal is being taken up most advantageously by the Heywood Mill Manufacturing Co. They are advertising for a manager.

The Albert New Mill Co. are about to replace their openers by exhaust openers. We learn that Messrs. Lord Bros., Todmorden, are entrusted with the order.

We understand that the New Spinning Company at Heywood, which is being erected to erect a mill on the site of the old Bridge is Mills, is receiving substantial support. Proposures will be shortly issued.

Mr. A. Mayall has decided not to re-start his mill, at which the serious accident happened to the engine a few weeks ago. He has sold out all the mixings of cotton in process and the machinery is being catalogued for sale.

Hickleton. An amendment to the Merchandises Marks Act was considered at the annual meeting of the Mid- land Counties Framework Knitters' Federation, when it was resolved that an endeavour be made to a clause inserted in the Bill to the effect that the machinery made goods be marked as such, and that Mr. Strutt be informed to this effect. It is necessary the public should be protected from fraud and the workers from injustice.

Kidderminster. Mr. E. J. Smith (of Smith and Son) is expected home from New York next week.