Machinery and Appliances.

NEW MECHANICAL STOP-MOTION FOR CARDING ENGINE.

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The introduction of stop-motions to most of the machinery in the preparatory processes of spinning has done more than anything else in bringing about the advance that has taken place in the quality of yarns during the past twenty years, and thereby increasing the earnings of the workpeople. But amongst the machines referred to the carding engine to which it has been adapted. The chief purposes sought to be accomplished have been to stop the machine when the sliver breaks between the doffer and the calender rollers; when the funnel choking; and also when the sliver from the splitting of a lap commences to run thin, mistakenly called 'single.' Our illustrations shew a side and front view of the invention, with such parts of the card as are necessary. The letters indicate the parts as follows:

A. Top calender roller.
B. Bottom ditto.
C. Catch on end of A.
D. Catch box.
E. Swivel lever.
F. Wedge.
G. Bracket supporting doffer lever.
H. Doffer change wheel.
I. Doffer wheel.
J. Doffer lever palley.

Plan.

STOP-MOTION FOR FLAT CARDING ENGINE, SIDE VIEW.—MESSRS. HOWARD AND BULLOUGH, ACCRINGTON.

In addition to the objects sought to be effected by this invention mentioned above, we may add that it is also designed to prevent the damage that may easily arise when the band driving the doffer-comb comes off its pulley or breaks. Under ordinary circumstances the fleece in this case would wind upon the doffer, and at the great speed at which they are now run would quickly fill the wire and so damage the clothing on both doffer and cylinder to such an extent as to necessitate re-clothing.

When in the course of working, from any of the causes mentioned, the sliver ceases to pass between the calender rollers ab, they close, and so affect the catch c on the end of the top calender roller a as to bring it into contact with the revolving catch-box b. This is loose on the shaft, and is driven by the other portion v', by frictional contact. The part indicated by v' is capable of sliding backward and forward on the shaft w. It slides on a key, which admits of its being positively driven by the shaft. As soon as the absence of the sliver permits the catch c to drop into gear with the catch-box d, the part v' slides along the shaft and carries with it the lever e, which swivels upon the centre v', opposite end of the lever f, pulling the wedge-shaped lever backwards and bringing the wedge portion into contact with the upper part of the handle g, which supports the doffer lever. This action drops the notch g off the bracket h, and so allows the doffer lever to drop, thus disengaging the change wheel i, and the wheel on end of doffer, thereby stopping the doffer and feed in the usual manner. The pulley j is continuously driven from the ends of the licker-in by means of a strap, thus giving a continuous motion to the change wheel above mentioned.

We need say nothing more to commend this invention to our practical readers, as its merits are sufficiently evident in the description. The makers will be pleased to afford any other information that may be desired.

BURMESE WEAVING.—Of the local industries of Lower Baramah silk weaving and pottery are the two most important. The first of these is carried on to a considerable extent. It is reported that 2,852 people are engaged in weaving in the Hathawally district, and 990 and 2,625 in the two subdivisions of the Pegu district. Practically all the weaving is done for local use by women in addition to their other household duties. In the Henanah district the weaving industry is carried on by Manipurs, and is said to be in a very flourishing condition. In Upper Baramah weaving by hand is almost as universal as in the lower province, the texture woven being in most cases cotton cloth, though silk weaving is also carried on to a certain extent.
bleaching processes. It is obvious that the details may be varied to a great extent without changing the principles on which the process depends; differences in the character of the water used at each particular bleach house may make or necessitate some slight differences; a hard water will require more resin and more alkali and acid to be used, because the lime in the water will neutralize some of the effects of these chemicals. Then, again, the general working pressure of the steam used in the kiers will vary in different works; at a bleach house working at from 10 to 15 pounds, pressure they will require more chemicals, and the boilers will have to be stronger than at a works where the pressure ranges from 20 to 25 pounds. In such a case, more soda, in proportion to the actual strength of the alkali; the impurities in the 62 per cent. alkali have some influence, and increase the quantity to be used to produce the same effect.

Market Bleach. — Here all that requires to be done is to get the cloth of a sufficient degree of whiteness to please the eye of the customer. Market bleachers have, however, to deal with a wider range of goods than is dealt with in the former kinds of bleaches, from very fine muslins to very heavy sheetings. Now it is obvious, from a merely mechanical point of view, that bleaching processes are not as rough a process as the latter, therefore there must be some differences in the details of muslin bleaching and sheeting bleaching. Then again, with goods sold in the white, it is customary to weave colours, bleedings and markings, and as these have to be preserved, to do so will cause some slight alteration of the details of the bleach with the object. On all these points it is difficult to lay down general rules, because of the very varying nature of the conditions which are met with by the market bleacher, but as much information will be given as possible.

(To be continued.)