TEXTILE MACHINERY.

21,957. R. B. Hardman, Bury, Lancs. Apparatus for Clearing Fibres from Grease, etc. [6 Figs.] September 29, 1896. This invention relates to apparatus for clearing fibres, such as wool or cotton waste from grease and impurities. For this purpose the fibres, in form of a thick sliver, are passed through jets of liquid, carbon bisulphide, or similar suitable solvent, illuminated in a closed tank, the sliver being moved along the floor of the tank by travelling chains or bands with scrapers having on its upper surface. The travelling chains or bands are arranged with the pulleys round which they pass in sections, between each pair of which is arranged an adjustable pair of pressing rollers through which the sliver is passed. While the pressing rollers occur the tank is depressurised so as to provide a channel, which collects solid impurities removed. After the solvent has removed the grease, other pairs of pressing rollers are used to press the fibres between the upper and lower sets of rollers, and plate clean and thoroughly dried separators.

Referring to the figure, the sliver of fibres to be cleaned being fed at A is carried upwards by the supplied travelling chains B over a perforated plate C through the spirit in the tank D, which has deep places E for deposit of impurities, these deep places having openings F for emptying them, provided with suitable cocks or valves not shown. The sliver in its course passes between pairs of pressing rollers G, and finally between the tank B, and is conveyed into a heated chamber where the spirit is evaporated from it and led to a condenser to be recovered. In a modification, instead of the chains for moving the sliver, parts of endless travelling portions are employed, the sliver being carried between them. The solvent is introduced into the apparatus at M near to the last pair of pressing rollers, and overflows at L back to a tank, containing with it the crease matter which has been extracted from the material passed through the machine. The solvent is then evaporated, and after being condensed returns to the supply pipe M, a constant circulation of solvent being thus maintained. (Accepted September 29, 1897.)

52,794. H. Bentley, Bradford, Yorks. Apparatus for Scouring and Dyeing Hank of Yarn or Fibrous Material. [5 Figs.] October 26, 1897. The vat A has a shaft A' mounted on one side of it by brackets A1 fixed outside of the vat. The shaft A' is driven by the countershaft A5, and bored wheels A7 and A8, the latter of which is connected to the shaft A3 by the cone clutch A9. Along the top of the vat a number of pipes B are provided. The arbor B' of three pipes are mounted in bearings fixed to the top of the vat. A few of the pipes B have wormwheels B' fixed to them, by which they are driven. These wormwheels are driven by worm A' on the shaft A3. The framework C is made to lift in and out of the vat and is provided with vertically adjustable lever A7, along each side in which illustrations D are formed for the ends of the lower sticks or rollers E which rest on the back pass. When the back pass is placed on the stick a' the lateral support is by the upper rail D. and D', and after the framework is placed in the vat the sockets are each slipped on to the upper end of the stick E, and fastened at the lower end to receive the stick D'. The framework D' consists of two wheels B' mounted in brackets B' on the end of the race. A wormwheel B is fixed on the lower shaft 5, and this wormwheel is driven by the worm 5 on the shaft 5, mounted in the bracket B. The short shaft 5 is driven by the wheels B' on its outer end and engaging the two nut wheels N, loosely mounted on the counter shaft A3. A double friction clutch A7 is mounted on the shaft A3, by which either of the wheels N may be made to revolve with the shaft according to the direction it is required to drive the hank F. The chain j passes from the hank F over the pulley H, then over the pulley G' on the trinity G, and is connected below to the framework C. Whilst the framework is being lifted or lowered the trinity lighted by the hook G' to one of a series of studs B' on one of the rails H. When the framework is lifted high enough to clear the vat, the fixed hook G' on the trinity is hooked into the link J' of the chain D, thus the chain above is shortened to permit of the trinity being moved along the rails H, H to carry the framework to any required place. (Accepted September 29, 1897.)