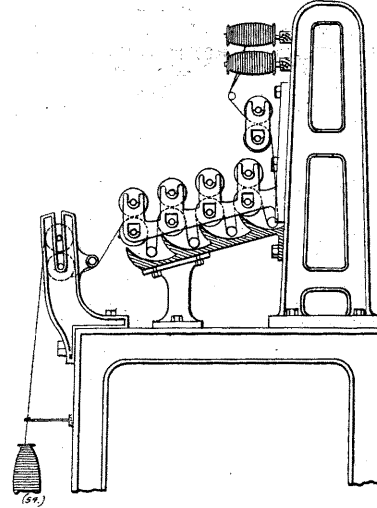


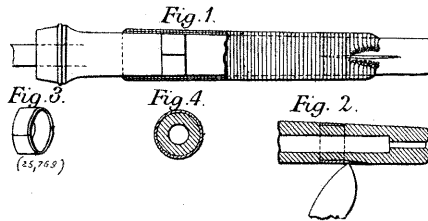
justable bearings, so that any desired pressure may be applied to the material treated.—The yarn is withdrawn from the bobbins by drag rollers, and is successively conducted between the rollers and through the mercerising and rinsing troughs, over the



drying rollers, and on to bobbins on which it is wound when doubled and mercerised. The mercerising liquor and rinsing water may be circulated by means of pumps connected with storage cisterns. (Accepted February 21, 1900.)

TEXTILE MACHINERY.

25,769. J. T. Ward and J. B. Curtis, Chicopee Falls, Mass., U.S.A. Bobbins. [4 Figs.] December 30, 1899.—This invention relates to bobbins such as are used in textile industries, and is designed to prevent the wilful waste of yarn by cutting or stripping, instead of unwinding, it from the bobbin. The surface of the bobbin consists of alternate sections of wood and metal uniformly arranged to present an obstruction



to the use of a knife blade against the surface of the bobbin, and thus to discourage the waste referred to. The metallic sections consist of split spring rings of steel, with square edges, sprung into grooves turned on the bobbin during its manufacture, thus adding little to its cost. These rings, in addition to their main object, strengthen the bobbin and increase its durability. (Accepted February 21, 1900.)

54. H. E. Ackroyd, Manningham, Yorks. Mercerising Threads. [1 Fig.] January 2, 1899.—According to this invention threads of cotton, ramie, and the like, are subjected to a mercerising treatment, at the same time that they are submitted to doubling and like mechanical processes. For this purpose, the mercerising liquor is run into troughs, which extend throughout the entire length of the doubling or other machine; and in the troughs are mounted small squeezing rollers between which the threads are passed on their way from one trough to another. These rollers may be mounted in ad-