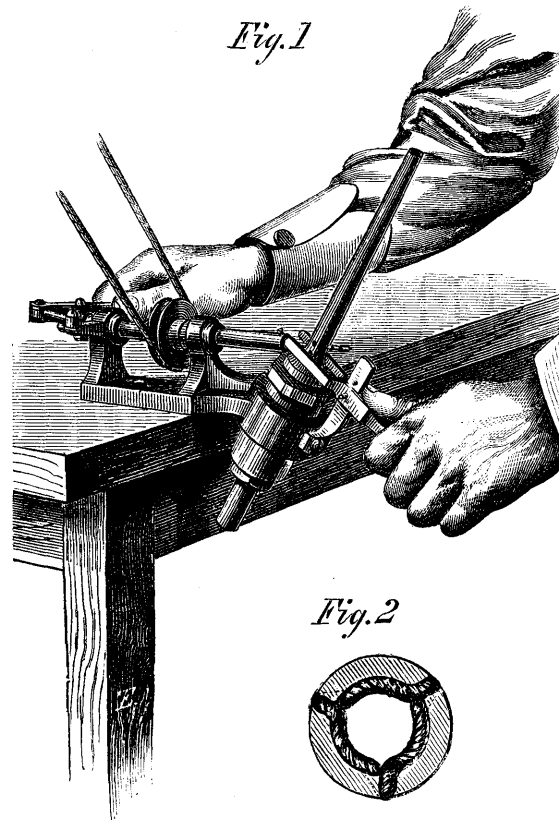


MORSE'S PLAN FOR CENTERING AND PACKING BOBBINS.

When wooden bobbins are used in spinning woolen or cotton yarn for weaving, there is some difficulty in properly centering the bobbin on the spinning spindle; the caliber of the bobbin becoming worn, it will not adhere sufficiently to the spindle. The temporary expedient of putting between the spindle and the interior of the bobbin a bit of waste or roving is a poor plan, troublesome and wasteful. Any packing intended to be permanent should be able to resist the action of the steam which is used for taking the kinks out of the yarn. The object of the simple device seen in the engraving is to prepare the bobbin for the reception of a packing that shall be effectual and shall center the bobbin on the spindle as perfectly after it has been steamed as before.

As will be seen, Fig. 1 is a miniature lathe or drilling



machine attached to a bench or table. It is driven very rapidly, carrying in its spindle a twist drill. The spindle is advanced to the work, or drawn back, by a lever as in many other drilling machines. The bobbin to be drilled is placed on a stud corresponding to a portion of the spinning spindle, which stud is held in a hollow cylinder passing through a bearing bored eccentric to its support, which stands at an angle to the horizontal boring shaft. The bobbin to be drilled is held firmly to place by a forked lever bearing on its base, and is further retained in position by three sharpened pins inserted in the base of the cylinder on which the bobbin rests. The support of the bobbin, being eccentric to the bearing, the bobbin presents its side to the drill. A ratchet and pawl inside the bearing allow the bobbin support to be turned one third of a revolution and hold the bobbin securely in position while being drilled. The holes thus drilled pass diagonally across the bobbin near the base, cutting into the caliber of the bobbin. Through these holes is passed a bit of twine or rubber, the wood between the holes on the outside being grooved out so that the packing will not project beyond the outer surface of the bobbin. Fig. 2 is a transverse section showing the intersection of the holes and the packing in place. When the packing is in the holes the substance of it, as seen in Fig. 2 will project equally into the bore of the bobbin so that when the bobbin is placed upon a spindle the parts thus projecting will bear upon its sides uniformly and secure the bobbin firmly in a central position. The holes may be bored in any part of the bobbin and at any angle desired, as the parts of the machine are adjustable.

Patented through the Scientific American Patent Agency Feb. 11, 1868, by C. B. Morse. Patents abroad have also been solicited through this office. For further information address "Union Iron Works," manufacturers of and dealers in all kinds of cotton and woolen machinery, Rhinebeck, N. Y.