

A. M. WADE.

Bobbin-Holders for Spooling-Machines.

No. 144,041.

Patented Oct. 28, 1873.

Fig. 1.

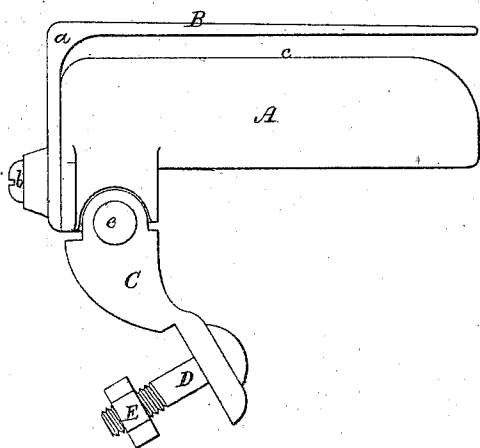


Fig. 3.

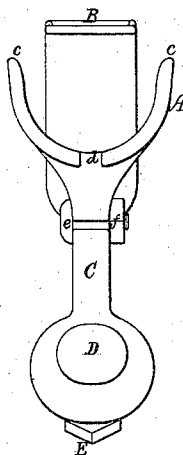


Fig. 4.

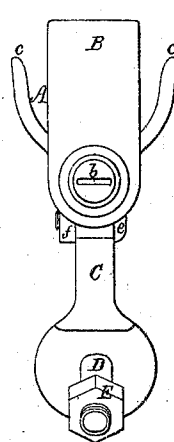


Fig. 2.

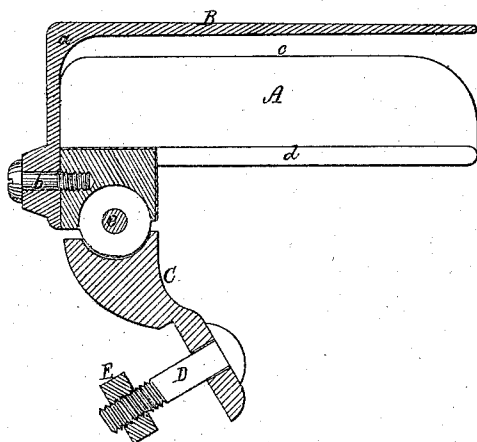


Fig. 5.

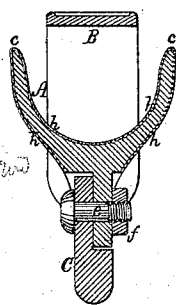
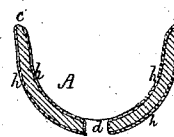


Fig. 6.



Witnesses.

S. N. Taper.
J. R. Snow.

A. M. Wade

by his attorney.

R. H. Eddy.

UNITED STATES PATENT OFFICE.

ASEL M. WADE, OF LAWRENCE, MASSACHUSETTS.

IMPROVEMENT IN BOBBIN-HOLDERS FOR SPOOLING-MACHINES.

Specification forming part of Letters Patent No. **144,041**, dated October 28, 1873; application filed September 8, 1873.

To all whom it may concern:

Be it known that I, ASEL M. WADE, of Lawrence, of the county of Essex and State of Massachusetts, have invented a new and useful or Improved Bobbin-Supporter for a Spooling-Machine; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side elevation; Fig. 2, a longitudinal section; Fig. 3, a front end view; and Fig. 4, a rear end view of the said bobbin-supporter. Fig. 5 is a transverse section of the article taken through the pivot of its arm. Fig. 6 is a transverse section of the slotted spout.

It consists, mainly, of a trough, A, and an adjustable friction-arm, B, the latter being formed with an elbow or bend, as shown at *a*. The arm is pivoted to the trough A, or connected to it by a clamp-screw, *b*, at its rear part, so as to be capable of being turned on such pivot and clamp-screw *b* laterally toward either of the two upper edges *c c* of the trough, and of being afterward clamped or held in place by the screw. Through the bottom of the trough, and to open out of its front end, is a slot, *d*. The trough, near its rear end, is hinged to a supporting-arm, C, the pivot of the hinge being a screw-bolt, *e*, provided with a screw-nut, *f*, all formed and arranged as shown. In order to fasten the arm to the frame of a spooling-machine, the said arm is flattened at its lower part, as shown, and provided with a fastening-screw, D, and nut E, arranged as represented. The trough A I make of iron or cast metal, and cover its inner surface and edges, or its entire surface, with the exception of its rear end, with a mineral or silicious glazing or enamel, *h*, such as is usually applied to the inner surfaces of iron pots or kettles in order to prevent oxidation thereof. The object of the enamel is to prevent oxidation, and enable to be readily cleaned that surface or those parts of the surface of the trough which, while it may be in use, may be exposed to contact with the yarn of the bobbin. Such yarn, being more or less oily, is liable to lubricate the surface of the trough, and thereby cause it to gather filaments and dust; and, beside, the yarn, while being drawn

against an edge of the trough, is liable to cut or wear into it and render it uneven, to the injury of the yarn; but, by covering the edge or exposed surface of the trough with enamel, such wear is prevented, and the yarn runs smoothly. The adjustable arm may also be enameled. The object of the adjustable arm is to vary the angle of draft of the yarn from the bobbin in order to obtain the requisite friction for winding the yarn on the spool, the bobbin being laid within the trough, and the yarn from the bobbin being laid out of the trough and against either of the longer edges of the arm. The object of the slot in the bottom of the trough is to enable the yarn to be run from the bobbin down through such slot, and thence to the spool, thereby obtaining a greater angle of draft or friction than can be attained by the arm. The object of pivoting the supporting-arm C to the trough, and providing the two with the clamp screw and nut, (the screw constituting the pivot) is to enable the trough to be adjusted to the proper inclination with the horizon.

The specification of the Letters Patent No. 93,254, granted, on the 3d of August, 1869, to me, describes a spooling-machine cell-bar furnished with a series of cells for holding bobbins, each cell being open at its front and closed at its rear end, and provided with a slot through its top. It is also stated in the specification of such patent that the cell-bar is generally pivoted to the spooling-machine frame, so as to be capable of being turned laterally within it, and fixed in place in a manner to bring the bar into the best position for supporting the bobbins relatively to the guide-bar. From this it will be seen that any such change in position of the cell-bar involved the simultaneous movement of all the cells. In the place of such a cell-bar, a series of united cells, I now have in the spooling-machine a series of separated cells or troughs, and with each pivoted to one of a series of supporting-arms, all being as specified. This enables me to effect the adjustment of each cell or trough independently of another, as circumstances may require, and thus to obtain a better adjustment of them than when they are connected or in one bar, as described in the spooling-machine. In lieu of applying the friction-arm to the

trough, so as to be adjustable independently of such trough, as described, the two may be connected together and applied to the supporting-arm, so as to be capable of being turned laterally in order to vary the angle of draft of the yarn, all of which involves the principle of the adjustable arm in combination with the trough, the duty of the latter being to support the bobbin, that of the former being to vary the angle of the draft.

Another mode of accomplishing the result would be to make the trough as a tube, slotted lengthwise through its top, and open at its front end, and so applied to the supporting-arm as to be capable of being revolved more or less transversely to vary the angle of draft of the bobbin thread or yarn going through the slot, such also involving the principle of the adjustable arm under another form.

I herein make no claim to the invention con-

stituting the subject of the said patent No. 93,254.

What I claim as my present invention or improvement in the spooling-machine is as follows, viz:

1. The combination of the trough A and the adjustable friction-arm B, all being substantially as specified.

2. The spooling-machine trough A, made or provided with the slot *d* through its bottom, such being as and for the purpose as explained.

3. The combination of the trough A and its supporting-arm C, pivoted together and provided with the clamp-screw *e* and nut *f*, as set forth.

ASEL M. WADE.

Witnesses:

R. H. EDDY,
J. R. SNOW.