No. 755,398. PATENTED MAR. 22, 1904.

C. SCHWARTZ.

BOBBIN WINDER.

APPLICATION FILED OCT. 6, 1903.

NO MODEL.

Fig. 1.

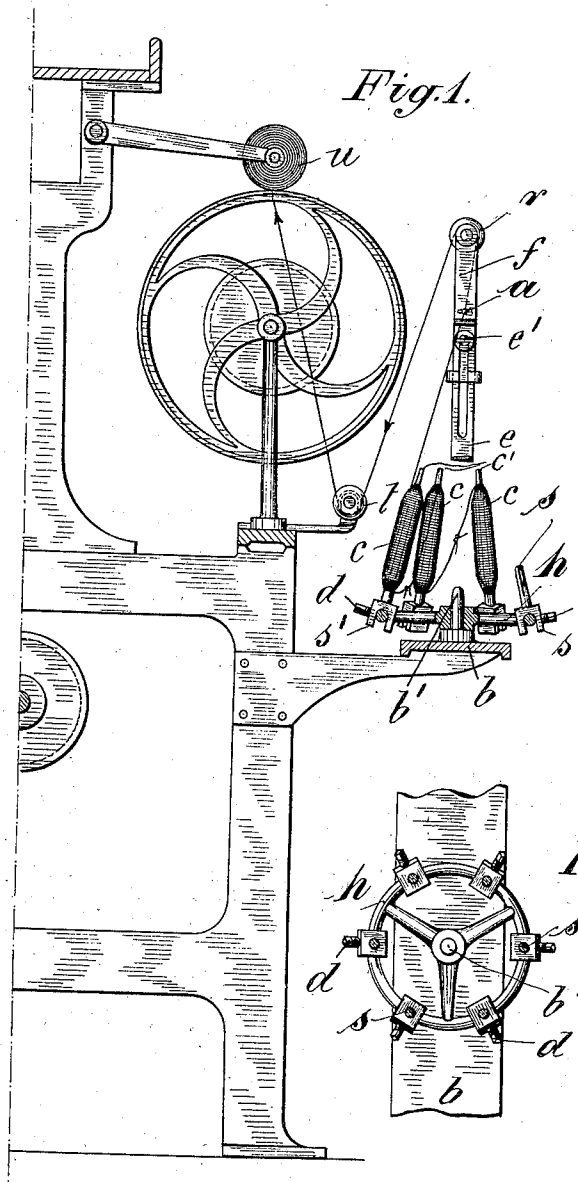

Fig. 2.

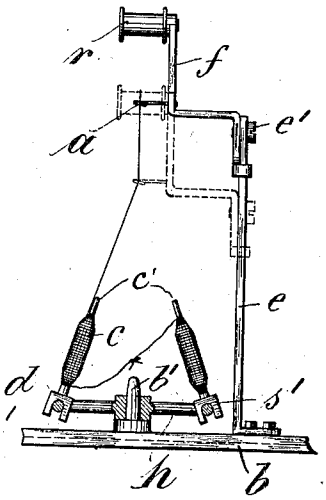

Fig. 3.

Witnesses:
Arthur Zeuge.
Frederick Unfricht

Inventor
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No. 755,398. Patented March 22, 1904.

UNITED STATES PATENT OFFICE.

CARL SCHWARTZ, OF MÜNCHEN-GLADBACH, GERMANY.

BOBBIN-WINDER.

SPECIFICATION forming part of Letters Patent No. 755,398, dated March 22, 1904.

Application filed October 6, 1903. Serial No. 175,923. (No model.)

To all whom it may concern:

Be it known that I, CARL SCHWARTZ, a citizen of Germany, residing at München-Gladbach, Germany, have invented new and useful Improvements in Bobbin-Winders, of which the following is a specification.

This invention relates to an improved bobbin-winder which is so constructed that the yarn from the cops may be run off uninterruptedly.

In the accompanying drawings, Figure 1 is a side elevation, partly broken away, of my improved bobbin-winder; Fig. 2, a front view, partly broken away, thereof; and Fig. 3, a plan of the rotatable base.

The letter *b* represents a support having pivot *b'*. This pivot is engaged by the hub of a wheel or rotatory base *h*. The hollow spindles *c'* of the cops *c* are rotatably mounted upon slitted cop-supporting spindles *s*, each of which is provided with a forked foot *s'*, which straddles the rim of wheel *h*. A clamp-screw *d*, passing through the foot *s'* and engaging the rim of wheel *h*, permits the inclination of the spindle and cop to be adjusted. In proximity to the wheel *h* there projects upwardly from support *b* a slotted standard *e*. To this standard there is secured by set-screw *e'* a vertically-adjustable arm *f*, carrying a roller *r* and a guide-eye *a* below such roller. The arm *f* is so bent that the roller and eye are centered above wheel *h*. From roller *r* the yarn runs over idler *t* to the bobbin *u*.

In use the inclination of the spindles *s* and the height of the eye *a* are adjusted to accord with the length and thickness of the cops, which should point toward the eye. The yarns of the adjoining cops being connected, so that the lower end of the thread on one bobbin is joined to the upper end on the next bobbin, the winding operation is started and may be carried on uninterruptedly. When one or more of the cops are run off, the wheel *h* may be turned in any direction, and new cops may be mounted.

What I claim is—

1. In a bobbin-winder, the combination of a wheel with cop-spindles, and means for adjustably securing the spindles to the wheel, substantially as specified.

2. In a bobbin-winder, the combination of a wheel with cop-spindles having forked feet adapted to straddle the rim of the wheel, and clamp-screws for adjustably securing the feet to the rim, substantially as specified.

3. In a bobbin-winder, the combination of a wheel with cop-spindles, means for adjustably securing said spindles to the wheel, a standard, a vertically-adjustable arm connected thereto, and a guide-eye and roller secured to the arm above the wheel, substantially as specified.

Signed by me at Dusseldorf, Germany, this 17th day of September, 1903.

CARL SCHWARTZ.

Witnesses:

PETER LIEBER,

WILLIAM ESSENWEIN.