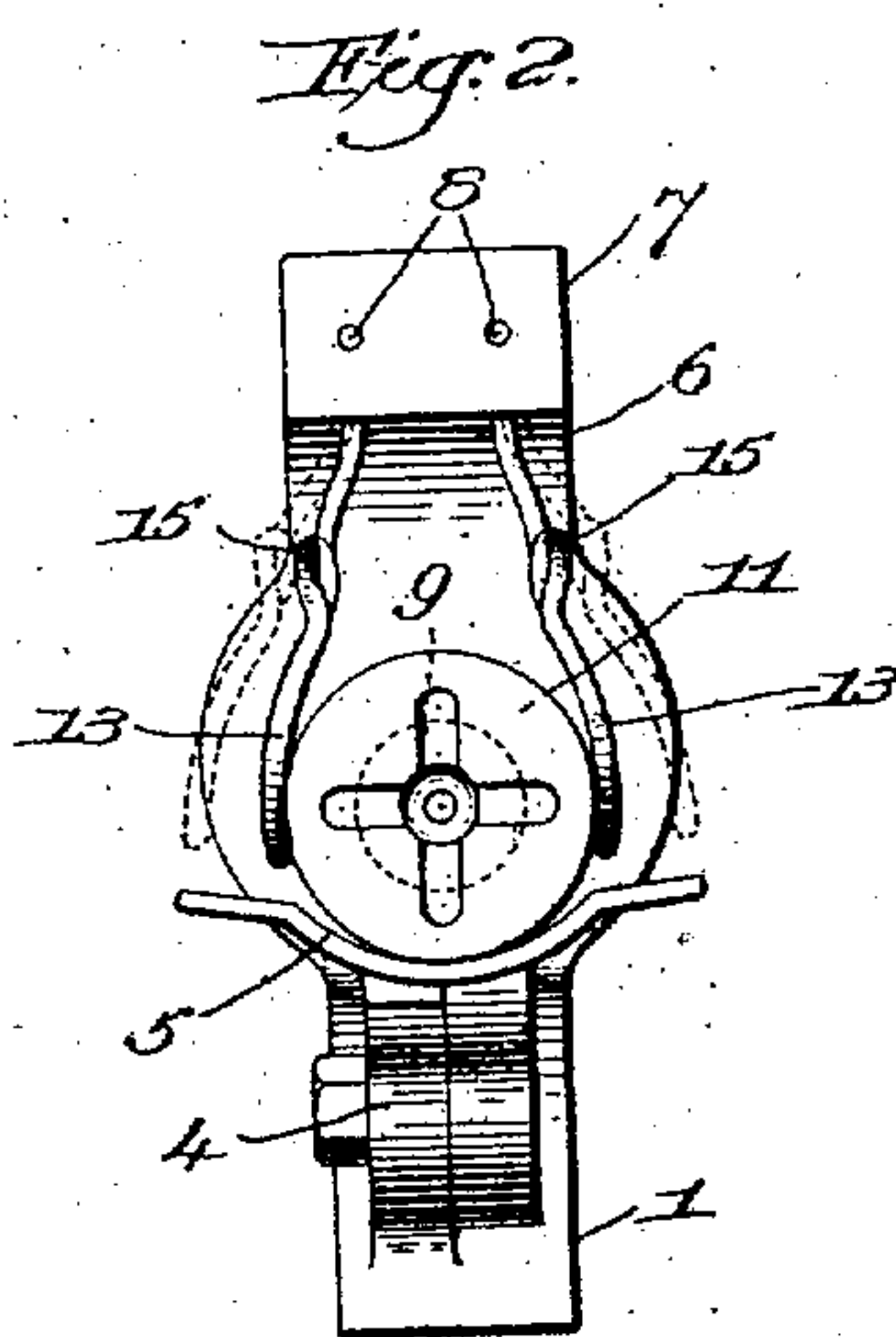
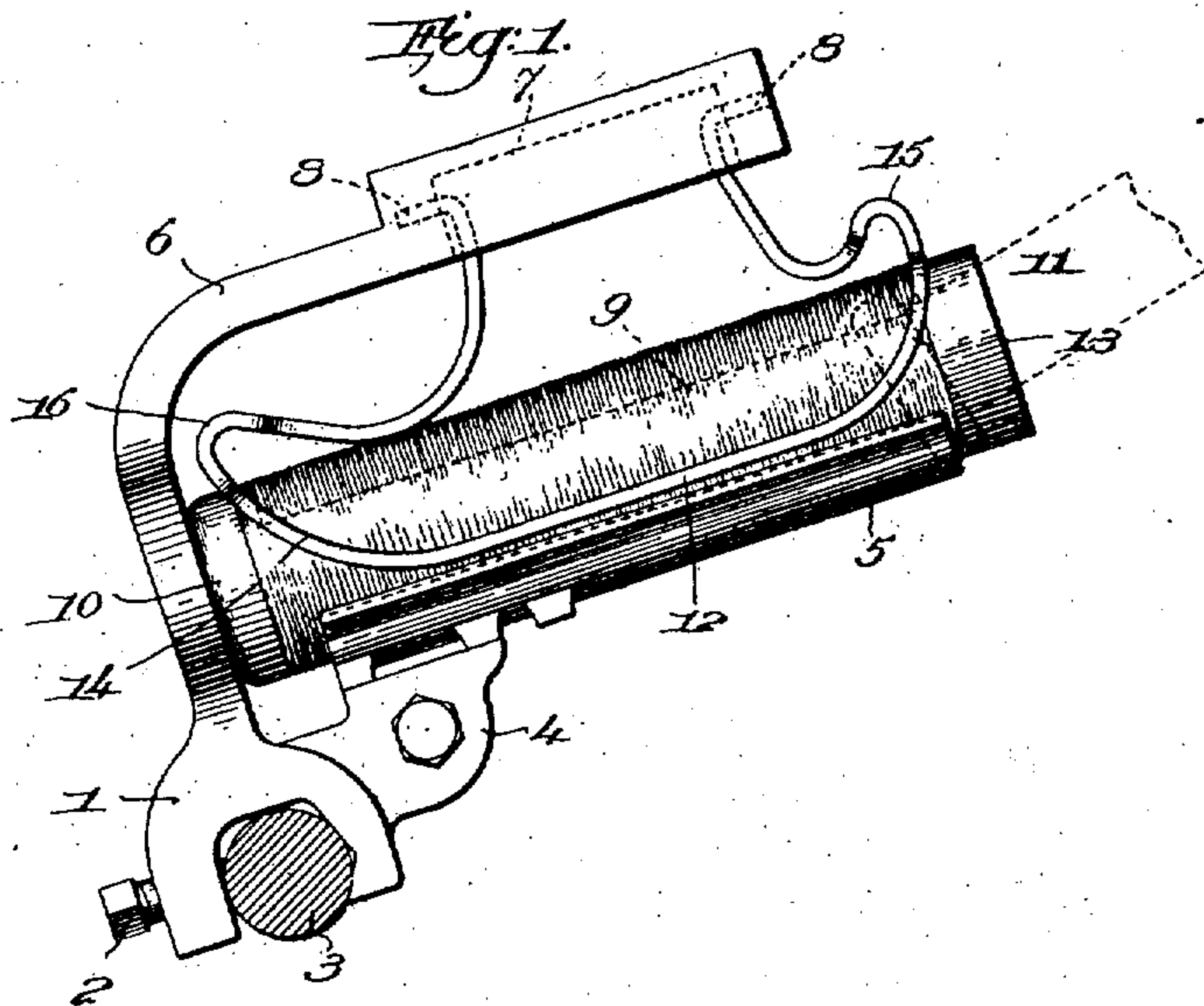


No. 850,099.

PATENTED APR. 9, 1907.

A. E. RHOADES.
BOBBIN HOLDER.

APPLICATION FILED APR. 12, 1906.



Witnesses,
Edward B. Allen.
Walter R. Trott

In witness whereof:
Alonzo E. Rhoades,
by Leroy & Gregory
attys.

UNITED STATES PATENT OFFICE.

ALONZO E. RHOADES, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO
DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

BOBBIN-HOLDER.

No. 850,099.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed April 12, 1906. Serial No. 311,269.

To all whom it may concern:

Be it known that I, ALONZO E. RHOADES, a citizen of the United States, and a resident of Hopedale, in the county of Worcester and State of Massachusetts, have invented an Improvement in Bobbin-Holders, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a bobbin-holder particularly adapted for use with so-called "double-headed" bobbins—that is, bobbins having enlarged ends to form a head and a butt. This type of bobbin is spun on twisting-machines, and there has been great difficulty in spooling yarn from such bobbins owing to the interference of the side guards with the bobbin-heads preventing the guards from contacting with the gradually-diminishing yarn mass and also because it has been troublesome to readily insert a full bobbin into place on the rest or pan of the holder.

In accordance with my present invention I have peculiarly shaped the side guards, so that while they properly cooperate with the yarn on the barrel of the bobbin they will not be interfered with by the heads, and consequently can follow the yarn down as it is wound off down to the barrel of the bare bobbin. I have also shaped the guards at the front to facilitate the insertion of a fresh bobbin, and preferably the rear ends of the guards are constructed to obviate catching on the butt of the empty bobbin when the same is withdrawn from the holder.

The various novel features of my invention will be fully described in the subjoined specification, and particularly pointed out in the following claims.

Figure 1 is a side elevation of a bobbin-holder embodying my present invention, a bobbin being shown in position therein. Fig. 2 is a front elevation of the bobbin-holder illustrated in Fig. 1.

Referring to the drawings, Fig. 1, the clamp 1, provided with a set-screw 2 to retain the bobbin-holder in place on the usual supporting-bar 3 of the spooler, the upturned ear 4, on which is mounted the pan or rest 5, and the overhanging arm 6, chambered at its outer end at 7 (see dotted lines) to receive the ends 8 of the laterally-movable side

guards, may be and are all substantially of well-known construction.

The bobbin is shown as of the double-headed type, having a cylindrical barrel 9, an enlarged head 10, and at its opposite end a second enlarged head or "butt" 11, as it is usually termed, the yarn being wound on the barrel between the heads, as shown in Fig. 1.

In accordance with my present invention the guards are made of stout wire, each guard having a substantially straight lower portion 12, adapted to bear against the yarn mass between the bobbin-heads, the front and rear portions of the guard being upturned in a gradual curve, as at 13 14, to points above the heads of the bobbin when the latter is on the rest. The wire is then bent inward, as at 15 16, and upturned to the extremities 8, Fig. 1, which latter loosely enter holes in the overhanging arm in usual manner, so that the guards are pivotally mounted in said arm and depend therefrom at each side of the bobbin.

By carrying the guards above the heads at front and rear I obviate any interference with the bobbin-heads and prevent the yarn from running off the guards when drawing off at or near the bobbin-heads, while the straight portions 12 of the guards bear against the yarn and properly cooperate therewith during the unwinding of the yarn.

The upturned portions 13 at the front of the guards are also curved or bowed outwardly, as shown in Fig. 2, in order to completely avoid engagement with the bobbin-head and also to facilitate the easy insertion of the bobbin into the holder, the circular edge of the head 10 when inserted between the outward curves at 13, as shown in dotted lines, Fig. 1, acting to spread the guards to admit the bobbin into place on the rest 5. I also curve outward the parts 14 in a similar manner to completely avoid contact with the bobbin-head and also to permit the empty bobbin to be withdrawn without catching its head on the rear ends of the guards.

During the unwinding of the yarn from a bobbin the side guards are relied upon to bear against the yarn mass, and thereby to exert a sufficient drag or resistance to prevent too rapid unwinding and impart proper tension to the yarn. With the ordinary bobbins this action of the guards is readily performed, from full to empty bobbin; but with double-

headed bobbins great difficulty has been experienced in practice, because after the yarn mass is partly wound off the heads engage the guards and from that point to the empty
5 bobbin the guards exert no proper control over the unwinding of the yarn. In accordance with my invention the guards are so constructed as to avoid any interference by or with the bobbin-heads, so that throughout
10 the entire unwinding operation the guards are in full control of the yarn, thereby completely obviating the trouble heretofore existing.

Having described my invention, what I
15 claim as new, and desire to secure by Letters Patent, is—

1. In a holder for double-headed bobbins, a rest for the bobbin, and laterally-movable
20 guards at the sides of the bobbin, each guard being up-curved at front and rear to extend

above and out of contact with the bobbin-heads and thereby avoid interference therewith during unwinding of the yarn.

2. In a holder for double-headed bobbins, a rest for the bobbin, and laterally-movable
25 wire guards at the sides of the bobbin, each guard having a straight lower portion to bear against the side of the yarn mass and curved upward and outward at front and rear from the straight portion, the upturned portions
30 extending above and out of contact with the bobbin-heads to avoid interference therewith as the yarn is unwound.

In testimony whereof I have signed my name to this specification in the presence of
35 two subscribing witnesses.

ALONZO E. RHOADES.

Witnesses:

GEORGE OTIS DRAPER,
ERNEST W. WOOD.