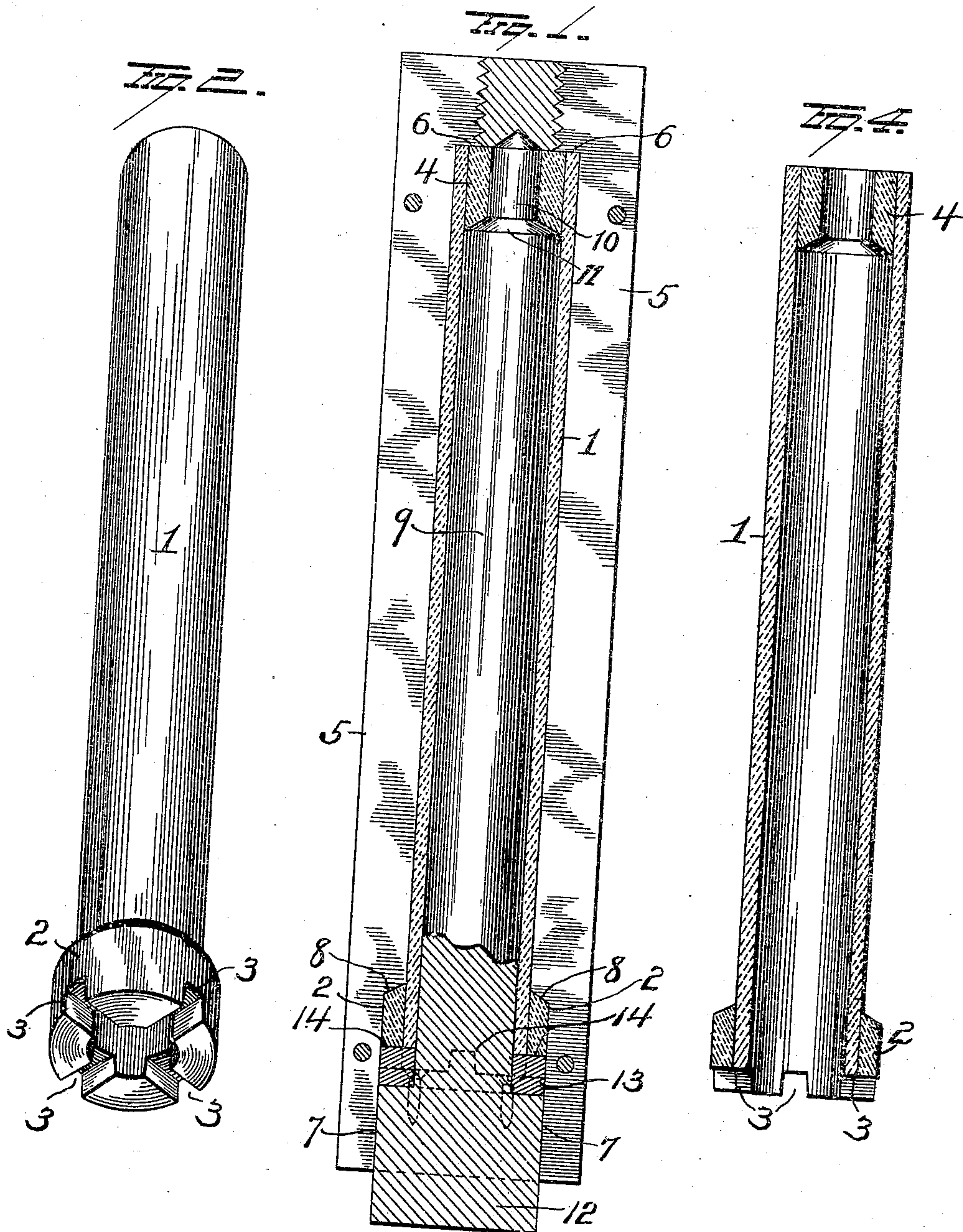


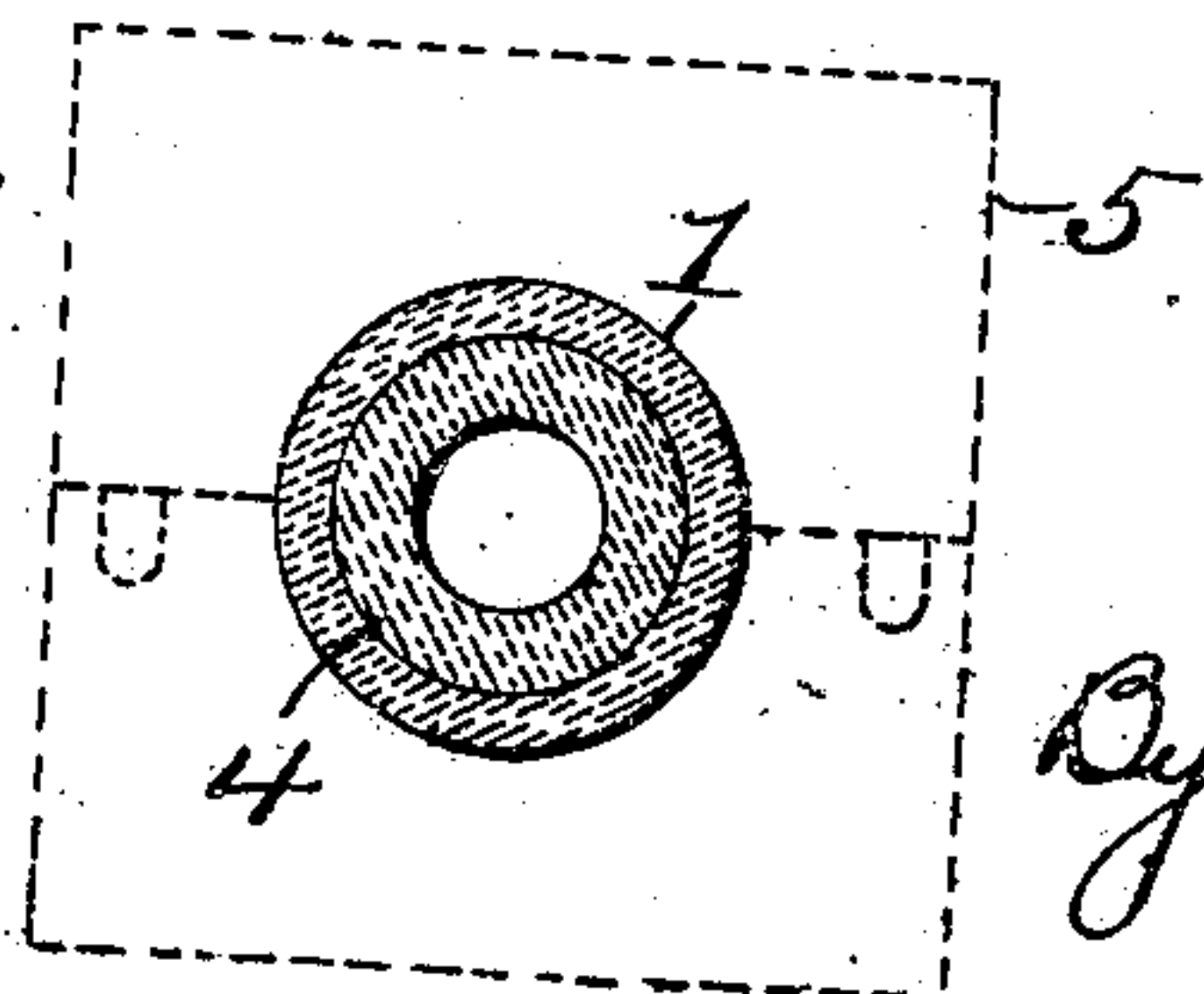
956,277.

M. A. BLAND.
BOBBIN.
APPLICATION FILED FEB. 20, 1909.

Patented Apr. 26, 1910.



WITNESSES
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UNITED STATES PATENT OFFICE.

MORTIMER A. BLAND, OF CHARLOTTE, NORTH CAROLINA.

BOBBIN.

956,277.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed February 20, 1909. Serial No. 479,092.

To all whom it may concern:

Be it known that I, MORTIMER A. BLAND, of Charlotte, in the county of Mecklenburg and State of North Carolina, have invented certain new and useful Improvements in Bobbins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in bobbins,—the object of the invention being to so construct a bobbin that it can be economically manufactured and so that it shall possess adequate strength and durability.

With this object in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional view illustrating the manner of making the bobbin. Fig. 2 is a perspective view of the bobbin, and Fig. 3 is a transverse sectional view, and Fig. 4 a longitudinal view of the latter.

1 represents the body portion of the bobbin which consists of a tube made of paper wound or wrapped upon itself. Upon the lower end of the tubular body 1, a collar or head 2 is placed. This collar or head as well as the contiguous end portion of the body or tube 1 is made with radial recesses 3 to receive lugs or projections on the device by means of which the bobbin is driven. The collar or head 2 is constructed of paper wound or wrapped upon itself the same as the body portion 1. A short sleeve 4 made of paper wound or wrapped upon itself, is placed within the upper end of tubular body 1.

When the parts shall have been assembled as above described and before the notches or recesses are made in the head or collar at the lower end of the bobbin, the said bobbin is placed within a holder 5 having an internal shoulder 6 near its upper end and an enlarged portion 7 at its lower end,—the juncture of said enlarged portion of the bore of the holder with the major portion of said bore forming an annular shoulder 8 against which the head or collar 2 will bear. The upper end of the tube 1 and the collar or sleeve 4 will bear against the shoulder 6. A mandrel 9 will be passed through the bobbin and a contracted portion

10 of said mandrel will pass through the sleeve 4, the shoulder 11 on the mandrel bearing against the inner end of the sleeve 4. The mandrel is provided at its lower end with a head 12 which enters the enlarged portion 7 of the bore of the holder 5 and to this head a plate 13 is secured. The plate 13 is provided with a series of lugs 14 which, when pressure is applied to the mandrel will operate to press the collar or head 2 and the contiguous portion of the tubular body 1 and thereby form the radial notches or recesses 3. When longitudinal pressure is thus applied to the mandrel, the paper of the tubular body 1, the collar or head 2 and the sleeve or collar 4 will be compressed and the said collar or head 2 and the sleeve or collar 4 will be intimately united with the respective ends of the tubular body 1 of the bobbin, so that no other fastening means will be necessary to hold the parts together.

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

1. A bobbin having a body consisting of a tube of paper wound or wrapped upon itself, and having a collar also consisting of a tube of paper in a dense or compressed state, the contacting surfaces of body and collar being pressed together in intimate union, which union constitutes the sole attaching means of the body and collar.

2. A bobbin having a body consisting of a tube of paper wound or wrapped upon itself, and in a dense or compressed state, and having a collar also consisting of a tube of paper wound or wrapped upon itself and in a dense or compressed state, the contacting surfaces of body and collar being pressed together in intimate union, which union constitutes the sole attaching means of body and collar.

3. A bobbin made of paper having a notch for a driver, the driver-engaging surfaces of the notch being compacted or compressed, whereby the fiber of the paper is preserved intact.

4. A bobbin having a body consisting of a tube of paper, and a collar at one end also consisting of a tube of paper concentric with the body, contiguous portion of the body and collar being indented to form a driver-engaging notch, the indented surfaces being compressed or compacted.

5. A bobbin comprising a tube of paper wound or wrapped upon itself, a collar or

head on one end of said tube and also made
of paper wound or wrapped upon itself and
having notches or recesses and a collar or
sleeve made of paper wound or wrapped
5 upon itself and disposed within the other
end of the tube, said tube, head and sleeve
being compressed together.

In testimony whereof, I have signed this
specification in the presence of two subscrib-
ing witnesses.

MORTIMER A. BLAND.

Witnesses:

JAMES A. BELL,
T. A. ADAMS.