

(No Model.)

G. FLORENCE.
MACHINE FOR MAKING TWINE OR CORD.

No. 572,479.

Patented Dec. 1, 1896.

FIG. 1.

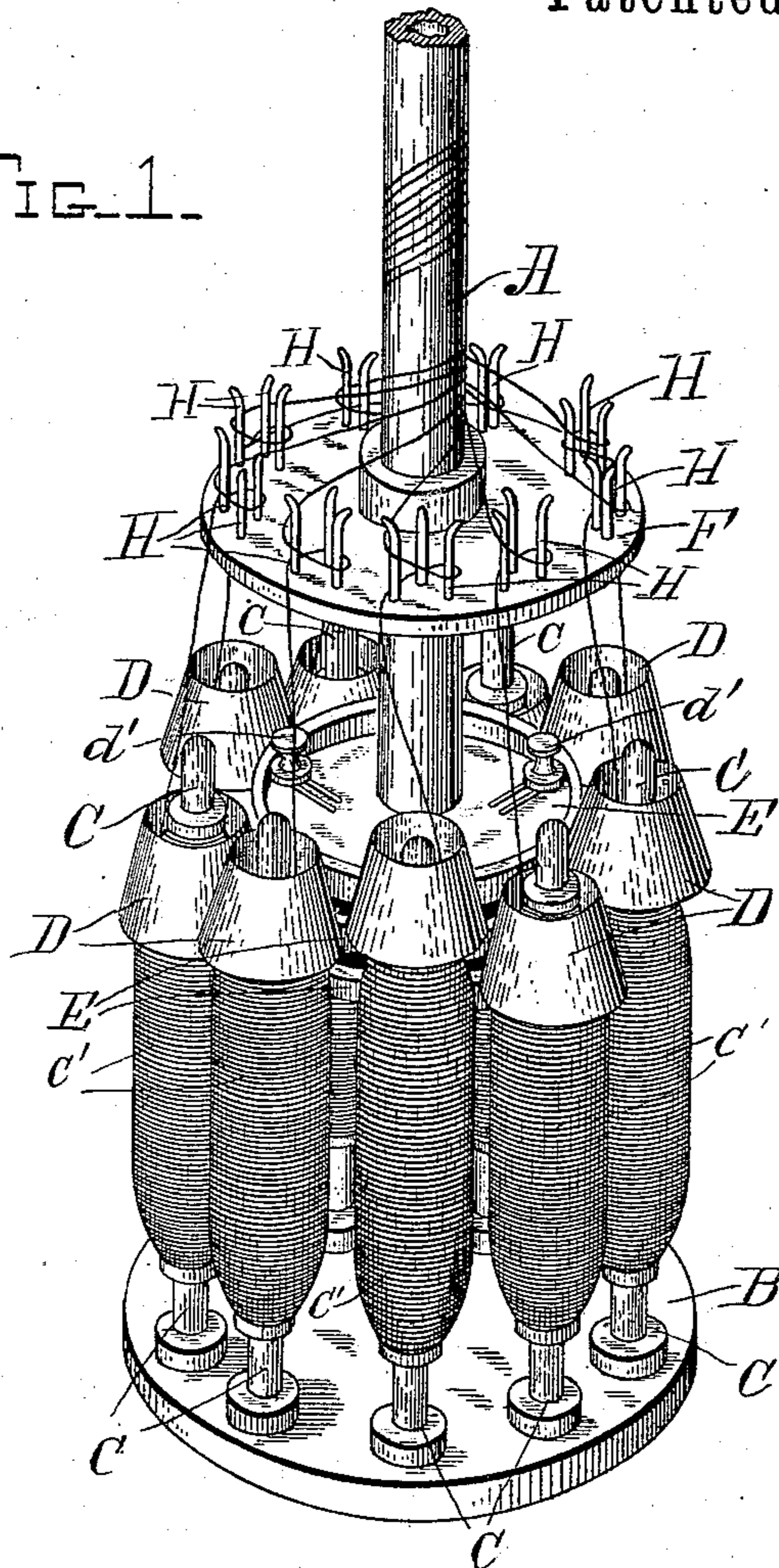


FIG. 2.

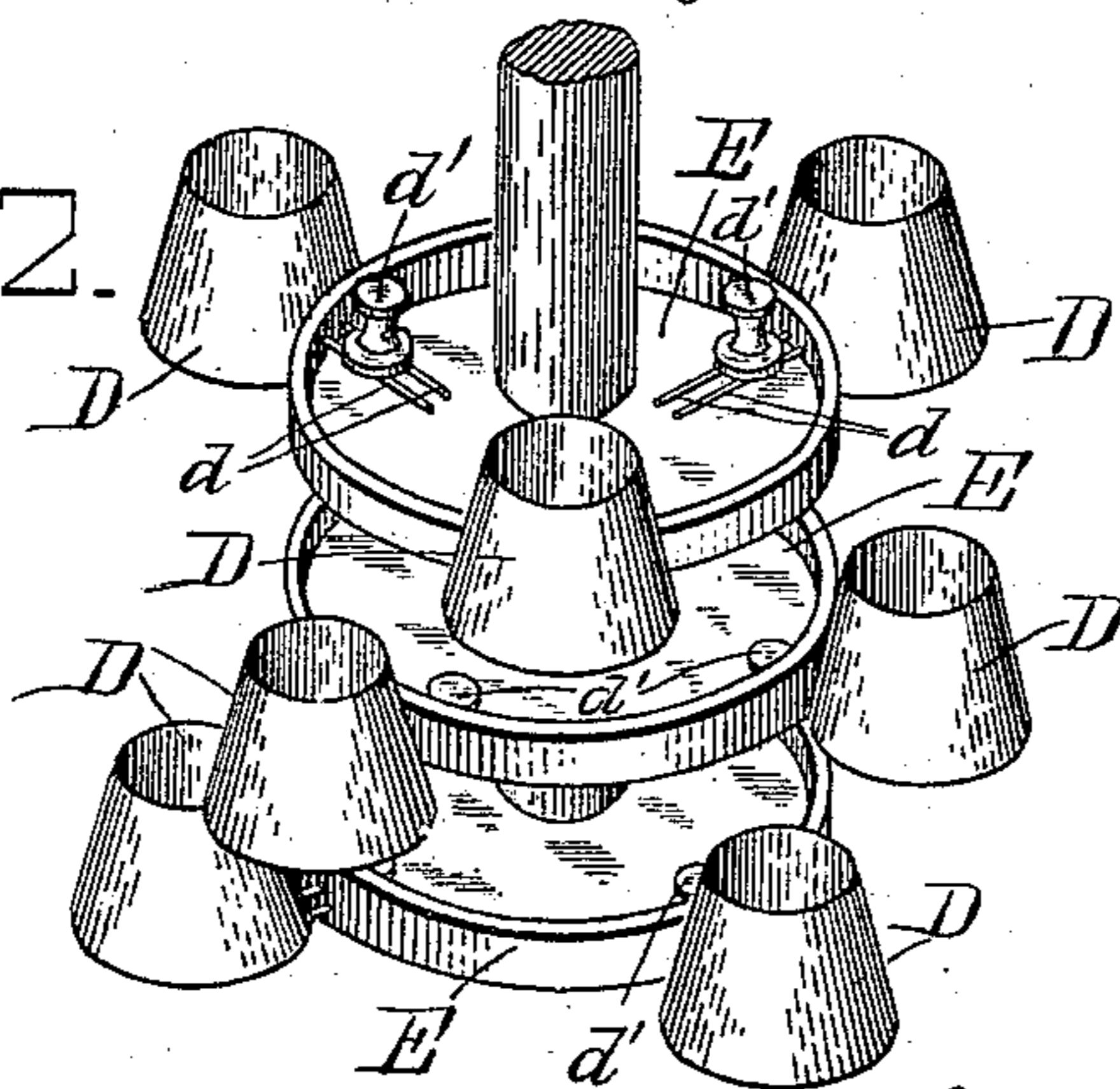
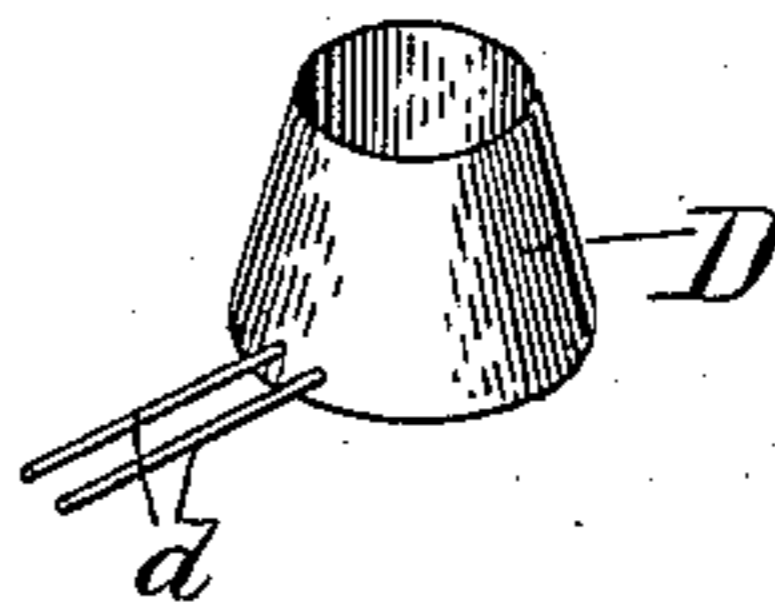


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE FLORENCE, OF NEWNAN, GEORGIA, ASSIGNOR OF ONE-HALF TO
R. D. COLE, SR., OF SAME PLACE.

MACHINE FOR MAKING TWINE OR CORD.

SPECIFICATION forming part of Letters Patent No. 572,479, dated December 1, 1896.

Application filed December 19, 1895. Serial No. 572,673. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FLORENCE, a citizen of the United States, residing at Newnan, in the county of Coweta and State of Georgia, have invented certain new and useful Improvements in Machines for Making Twine or Cord; 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.

My invention relates to improvements in machines for the manufacture of twine, cord, and the like.

The object of this invention is to provide an improvement on certain parts of the machine shown in my Patent No. 530,891, granted December 11, 1894; and it consists of certain novel features hereinafter described and claimed.

Reference is had to the accompanying drawings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a perspective view of a plurality of bobbins mounted around a former-spindle and provided with superimposed disks and thread-guides. Fig. 2 represents a perspective view of the superimposed disks with thread-guides and mounted on the former-spindle farther apart than in the above figure for the sake of clearness, and Fig. 3 represents a perspective view of one of the thread-guides detached from the disk.

A represents the former-spindle, near the bottom of which is mounted the bobbin-plate B.

The bobbin-spindles C are mounted fast on the said bobbin-plate B in a circle around the central former-spindle A.

The object of this invention is to provide a means for preventing the yarn from the several bobbins C' from becoming tangled and yet not restrict the number of bobbins when such devices are used, as is the case with those devices now in use. I accomplish the above result by placing a plurality of superimposed disks E on the former-spindle A and attaching the thread-guides D to the said

disks in such a manner that they may be made to overlap each other and yet not interfere.

By arranging the thread-guides so that they may overlap each other not only can a large number of thread-guides and hence a large number of bobbins be used, but the thread-guides so used may be made of a larger size than otherwise. The thread-guides E are made in the shape of a frustum of a cone, that shape being found advantageous.

It will be seen that each disk carries three thread-guides and that the thread-guides on one disk are advanced forty degrees to those on the disk above, the thread-guides on the same disk being one hundred and twenty degrees apart.

Though the above arrangement is shown in the drawings, it is obvious that a larger number of bobbins may be used and that the arrangement of the guides may be altered to suit the special cases. These thread-guides are provided with two pins *d*, which pass through the flanged sides of the disks E and are held in position by the screws *d'*. By this arrangement the distance between the side of the disk and the thread-guide may be varied at pleasure.

F represents a tension-plate provided with the tension-wires H. These wires are bent over at their upper ends, as shown, and the yarn is led up from the bobbins and around these tension-wires, which are placed in groups of three wires in each group, and from thence the yarn is led to the former-spindle.

It is obvious that the form and disposition of the herein-described thread-guides may be modified and that other minor changes may be made without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a machine of the character described, the combination with a rotating former-spindle, of a plurality of bobbin-supports rigidly connected to said former-spindle and rotating therewith, and a plurality of superimposed disks each provided with guides, secured above said bobbin-supports and rotating with

said former - spindle, substantially as described.

2. In a machine of the character described,
the combination with a rotating former-spindle,
5 dle, of a plurality of bobbin-supports adapted
to rotate with said former-spindle, and a plurality
of superimposed disks secured to said
former-spindle and each provided with guides

in the form of inverted frustums of cones,
substantially as described. 10

In testimony whereof I affix my signature
in presence of two witnesses.

GEO. FLORENCE.

Witnesses:

H. G. MADDEX,
W. D. BRONAR.