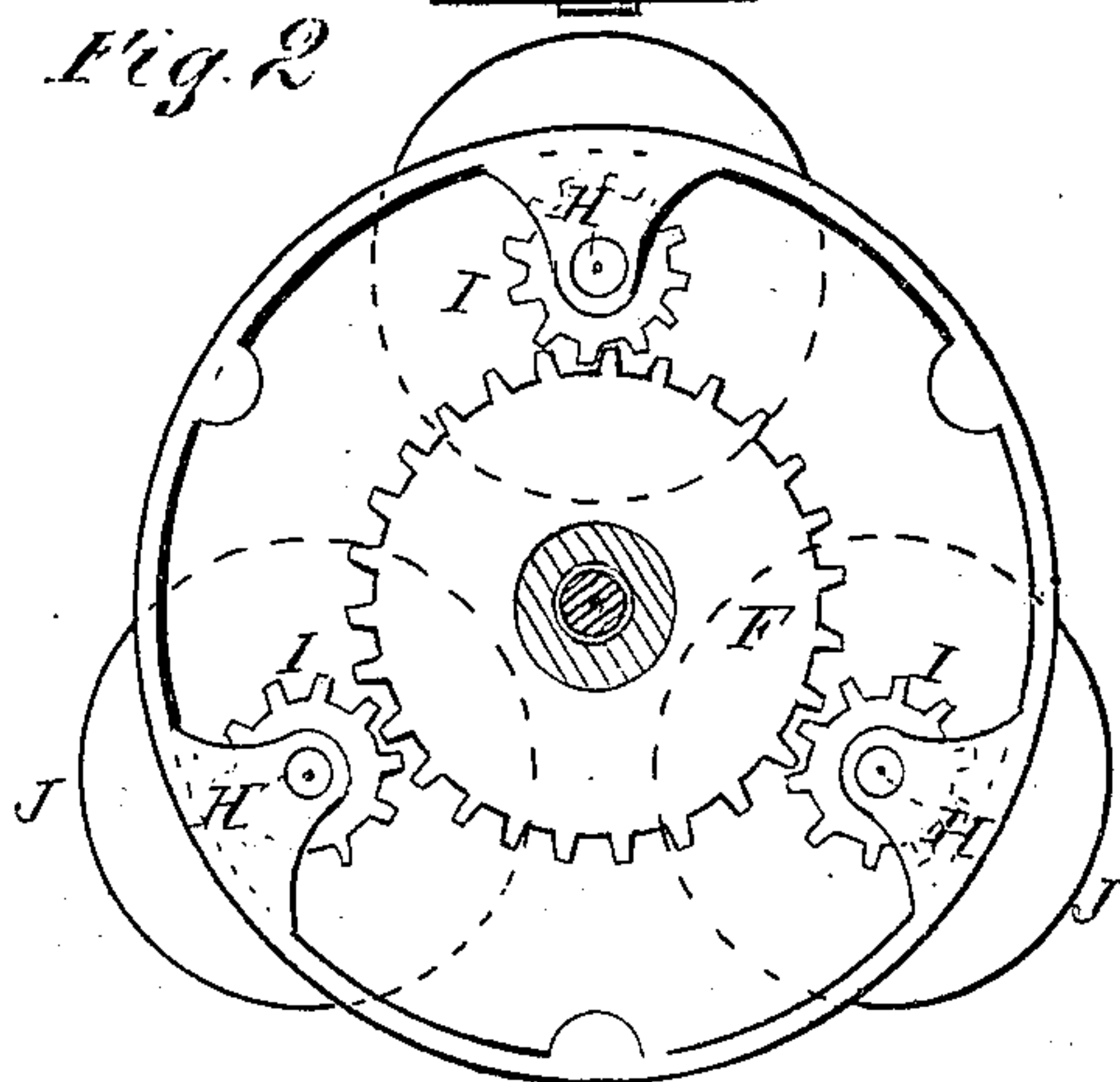
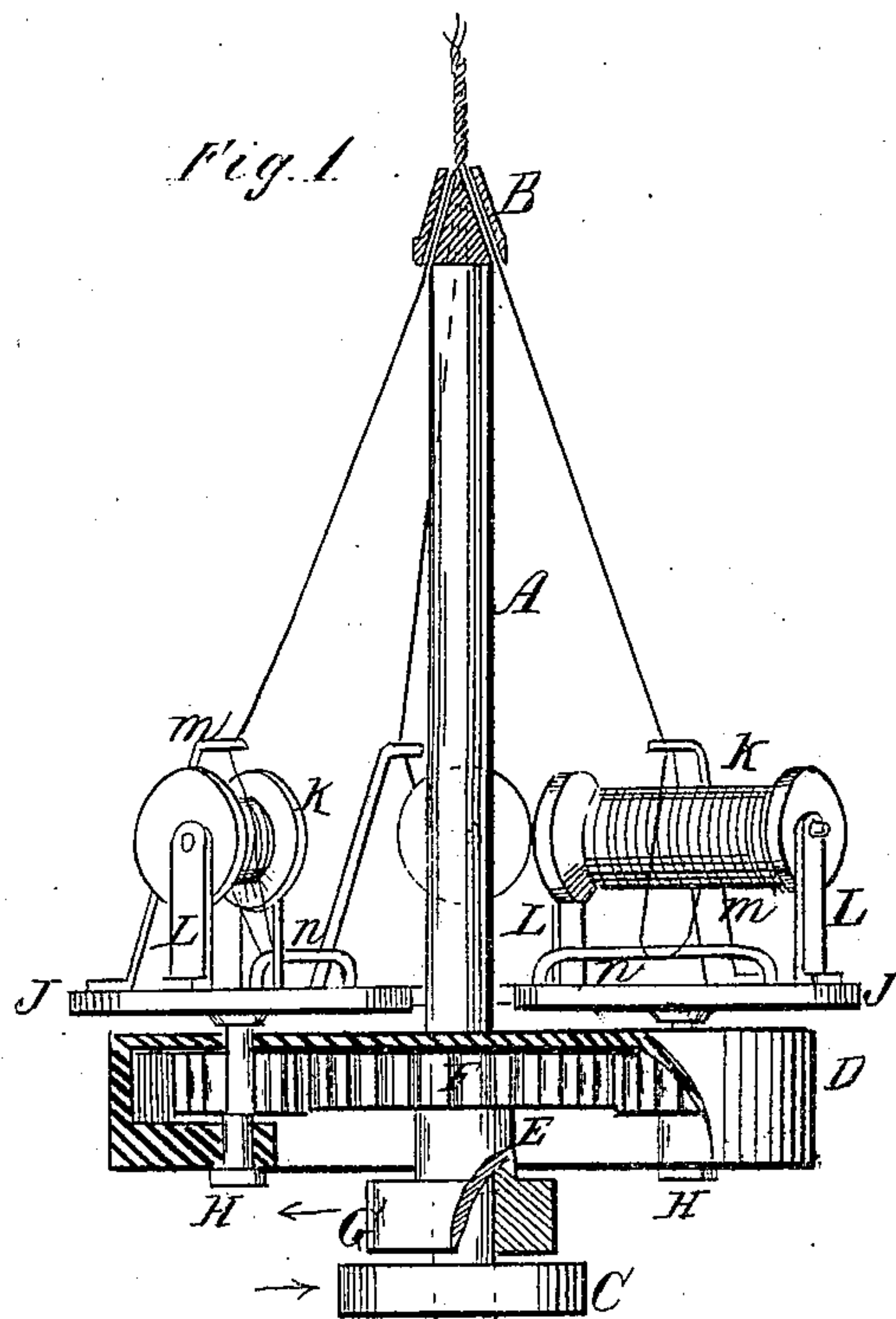


G. F. Wright, Card Machine.

No. 93,205.

Patented Aug. 3. 1869.



Witnesses:

A. W. Almqvist
J. Erickson

Inventor:

G. F. Wright
PER *[Signature]*
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE T. WRIGHT, OF NEW PRESTON, CONNECTICUT, ASSIGNOR TO HIMSELF AND WALTER BURNHAM, OF SAME PLACE.

IMPROVEMENT IN CORD-MAKING MACHINES.

Specification forming part of Letters Patent No. 93,265, dated August 3, 1869.

To all whom it may concern:

Be it known that I, GEORGE T. WRIGHT, of New Preston, in the county of Litchfield and State of Connecticut, have invented a new and Improved Machine for Twisting Cord; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to new and important improvements in machines for twisting or "laying" cord and twine, having more particular reference to hard-twisted cord, twine, or rope; and it consists in the arrangement of parts, as hereinafter more fully described.

In the accompanying plate of drawings, Figure 1 represents a sectional elevation. Fig. 2 is a view of the bottom with the pulleys removed, showing the system of gears by means of which the twisting of the strands of the cord is accomplished.

Similar letters of reference indicate corresponding parts.

A is an upright spindle bearing upon its top end the cone B, through which the strands pass, above which they are united, and twisted or layed, as seen in the drawings.

C is a pulley on the lower end of the spindle for revolving it by means of a belt.

D represents a hollow platform, which is fast on the spindle A, in which the gear-wheels are confined for revolving the spools and twisting the strands.

E is a sleeve on the spindle, to which is attached a central gear-wheel, F.

G is a pulley on the sleeve, by which the sleeve and gear are revolved on the spindle. This sleeve (with the wheel F) and the spindle A are revolved in opposite directions, as indicated by the arrows.

Passing through the hollow platform D are three (more or less) short shafts, H, each bearing a pinion-wheel, I, which meshes into the central wheel, F, as seen in Fig. 2. Upon the upper ends of these shafts are circular platforms or disks J. Upon these disks J the spools or bobbins K are supported on stands L, so that they can freely revolve on pivots for the unwinding of the threads of which the cord is composed. The spools are made detachable from their stands by means of springs or otherwise.

m represents guide-eyes, which are attached to the disks, and curved so that their upper ends (or eyes) are above the center of the spools.

n represents tension-wires, which are attached to the disks, as seen in the drawings.

The raw untwisted material or cotton, in the form of what is known as "sliver," may be placed upon the spools, or thread or yarn in any other form may be placed thereon for forming the strands of the cord to be twisted. In any case the speed with which the disks J with the spools are revolved depends upon the amount of twist the material for the strands requires. The required speed for the twisting of the strands, as well as the speed of the spindle for laying or twisting the cord, may be regulated by any suitable mechanical means.

The yarn or material from which the strands are formed is seen in red color on the spools. The end is carried from the spool and passed under the tension-wires n, and from them up through the guide-eyes m, as seen in the drawings, when the twisting of the strands commences.

It will be seen that by placing the spools in a horizontal position and carrying the threads under the tension-wires n and through the guide-eyes the strain upon the threads is kept uniform, which is not the case where a spool is placed upright.

The importance of maintaining a uniform tension in the strands in laying cord is a matter of the greatest moment, especially in laying hard cord.

This machine is designed for using any material which is suitable for the purpose, and to twist or lay twine, cord, or rope, as the machine may be made of suitable strength and size for every description of this kind of goods.

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

The arrangement of the spindle A, pulley C, hollow platform D, sleeve E, pulley G, gear-wheels F I, disks J, horizontal bobbins K, eyes m, and bent wires n, all constructed as herein described, for the purpose specified.

GEORGE T. ^{his} × WRIGHT.
mark.

Witnesses:

CHARLES B. ANDREWS,
EDNA S. BURNHAM.