

(No Model.)

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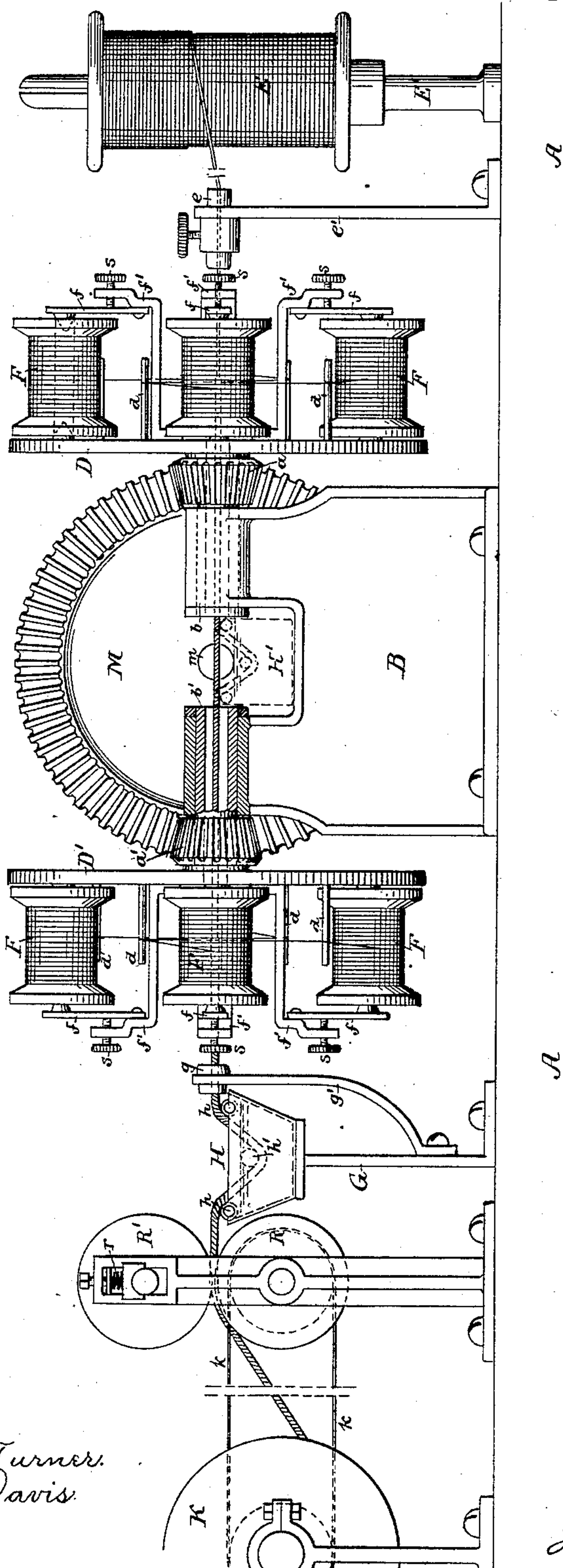
J. C. BELK.

MACHINE FOR COVERING WIRE AND OTHER CORES.

No. 348,822.

Patented Sept. 7, 1886.

FIG. 1.



Witnesses:
Hamilton O. Turner.
William F. Davis.

Inventor:
John C. Belk
by his Attorneys
Howson & Sonp

(No Model.)

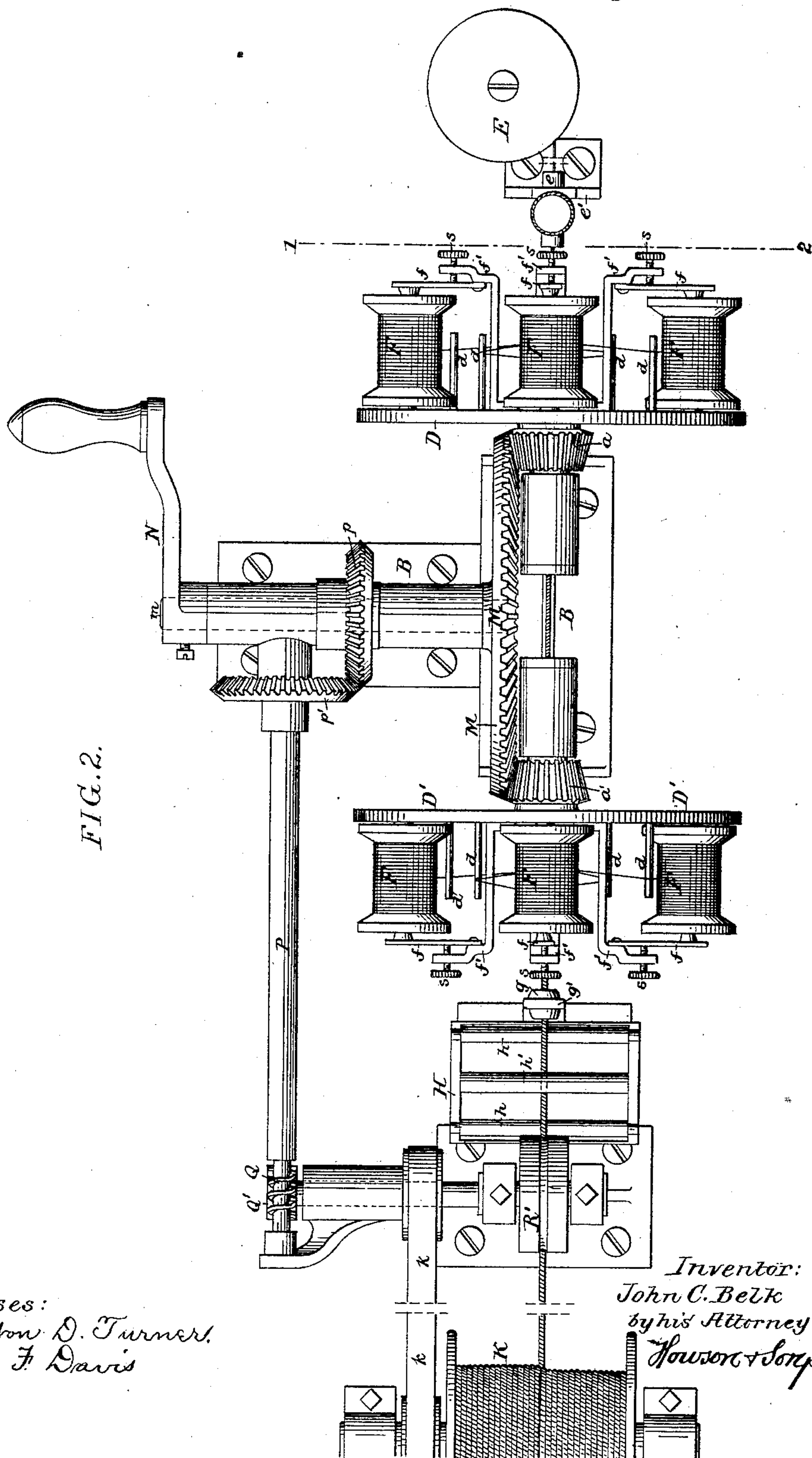
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Inventor:
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3 Sheets—Sheet 3.

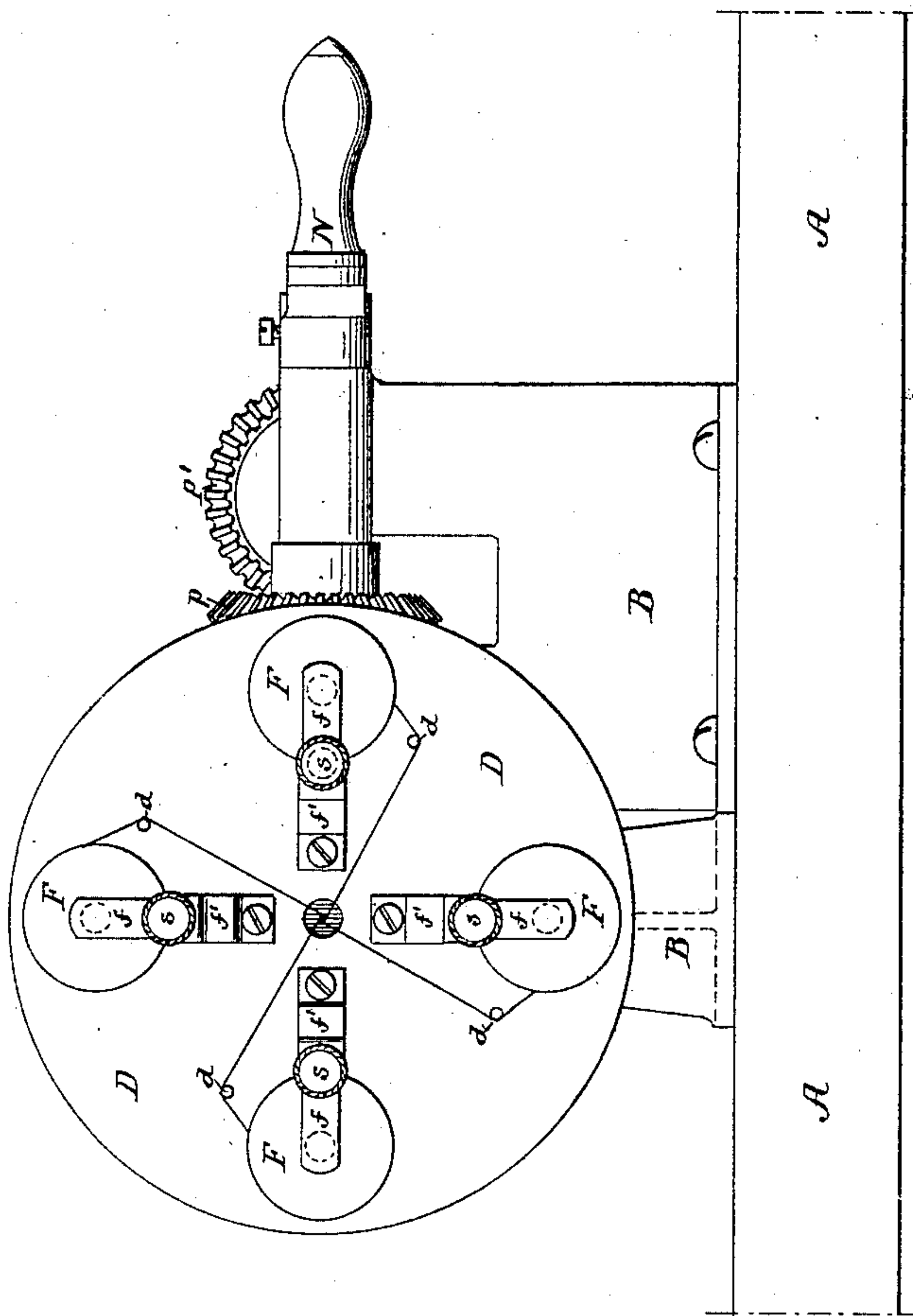
J. C. BELK.

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Patented Sept. 7, 1886.

FIG. 3.



Witnesses:

Hamilton Q. Turner.
William F. Davis

Inventor:

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by his Attorneys
Hosmer & Co.

UNITED STATES PATENT OFFICE.

JOHN C. BELK, OF TOMBSTONE, ARIZONA TERRITORY.

MACHINE FOR COVERING WIRE AND OTHER CORES.

SPECIFICATION forming part of Letters Patent No. 348,822, dated September 7, 1886.

Application filed April 14, 1886. Serial No. 198,826. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. BELK, a citizen of the United States, residing in Tombstone, Cochise county, Arizona Territory, have invented a certain Improved Machine for Covering Wire and other Cores, of which the following is a specification.

The object of my invention is to construct a simple and efficient machine for covering or wrapping wires, strings, and other cores or strands with a covering of wire, fiber, floss, or other flexible material, and also for wrapping or covering compound strings for musical instruments.

In the accompanying drawings, Figure 1 is a side view of my improved apparatus with a part in section. Fig. 2 is a plan view of the same; and Fig. 3 is a sectional view on the line 1 2, Fig. 2.

A is a base, on which the different parts of the machine may be suitably mounted, and B is a standard secured to the base, and having bearings for two hollow spindles, $b\ b'$, which carry bevel-pinions $a\ a'$, forming part of or attached to corresponding disks, $D\ D'$, on the adjacent faces of the latter. These disks, as hereinafter described, carry on their outer faces the spools or bobbins for the flexible material to be wound onto the central core or strand, which, in the present instance, is shown as drawn from an upright spool, E, on a suitable post, E' . The core or strand, on its way to the wrapping-disks $D\ D'$, passes through a guide-eye, e , on a standard, e' , on the base. In the present instance I have shown each of the disks $D\ D'$ as carrying four bobbins, $F\ F'$; but the number may be varied, as found convenient. Each bobbin is held between a conical point on the disk and a conical point on a spring tension-arm, f , carried by a bracket, f' , which is provided with an adjusting-screw, s , bearing on the arm f , so that more or less tension or friction may be applied to the bobbin F , as the drawing off of the wrapping fibers or strand may require. Each spool has a corresponding guide-pin, d , adjacent to it, for the passage of the covering-strand around it on its way from the bobbin to be wrapped onto the wire or core from the spool E. The core passes directly through the hollow spindles $b\ b'$, which are in line with each other, and thence passes through the guide-eye g on an

arm, g' , projecting from the standard G, which carries at its upper end a trough, H, provided with guide-rollers $h\ h'$, around which the covered wire, as it comes from the second disk, D, may pass and be immersed in paraffine or other insulating material in the trough H when it is desired to apply such material to the covered wire—as, for instance, in the case of telegraph-wires. In some cases I may also introduce a trough, H' , also with guide-rollers, between the two hollow spindles $b\ b'$, as indicated by dotted lines in Fig. 1, so that the first covering also of the wire may receive a coating before the second covering is applied. From the trough H the wire passes between a pair of feed-rollers, $R\ R'$, which may be grooved for the reception and passage of the covered wire, and may receive motion, as hereinafter described. I prefer to impart a positive motion to the lower roller, R, and have the upper roller, R' , a pressure-roller, provided with springs r , acting on the movable bearing-blocks r'' to press the upper roller into contact with the lower one. From the feed-rollers the covered wire passes to a suitable receiving-drum, K, which may receive motion from the shaft of the lower feed-roller, R, by a belt, k , or other suitable means. I impart motion to the two wrapping disks $D\ D'$ in opposite directions by means of a bevel gear-wheel, M, mounted on a shaft, m , in bearings in the standard B at right angles to the two spindles $b\ b'$. This bevel-wheel M gears into the two pinions $a\ a'$, and may receive motion either from a hand-crank, N, on the shaft of the wheel M, as shown in Fig. 2, or may be driven by power in any suitable manner. Motion may be transmitted to the lower feed-roller, R, from the same shaft by means of bevel-gearing $p\ p'$, shaft P, worm Q, and worm-wheel Q' on the axis of the lower feed-roller, R.

By the above-described simple construction of apparatus wires or other cores may receive two wrappings laid on in opposite directions, one over the other, with any given number of threads or strands at the same time, and in covering cores for ornamental purposes any desired number of threads of various colors may be used, and preferably a large number of various colors on the first disk and but one or two threads on the second disk, so that the inside covering will show between the threads

laid on by the second disk, and thereby produce a very ornamental variegated cord.

I claim as my invention—

5 In a wrapping-machine, the combination of two disks, D and D', carrying spools on their outer faces, and having pinions *a a'* on their inner or adjacent faces, with a driving-wheel, M, between the two disks and gearing with both pinions, substantially as set forth.

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

JOHN C. BELK.

Witnesses:

WILLIAM HERRING,
ROBT. W. KENNY.