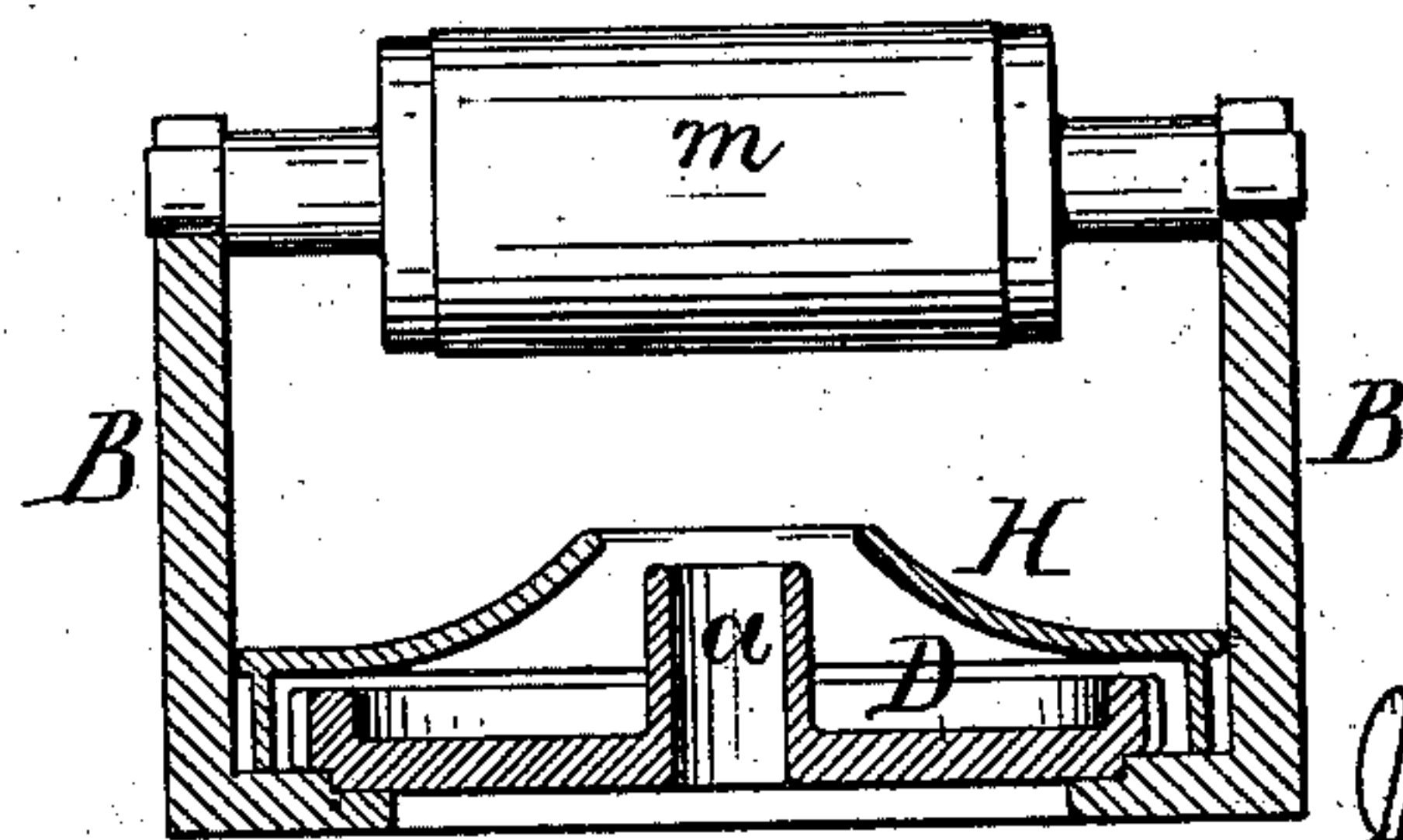
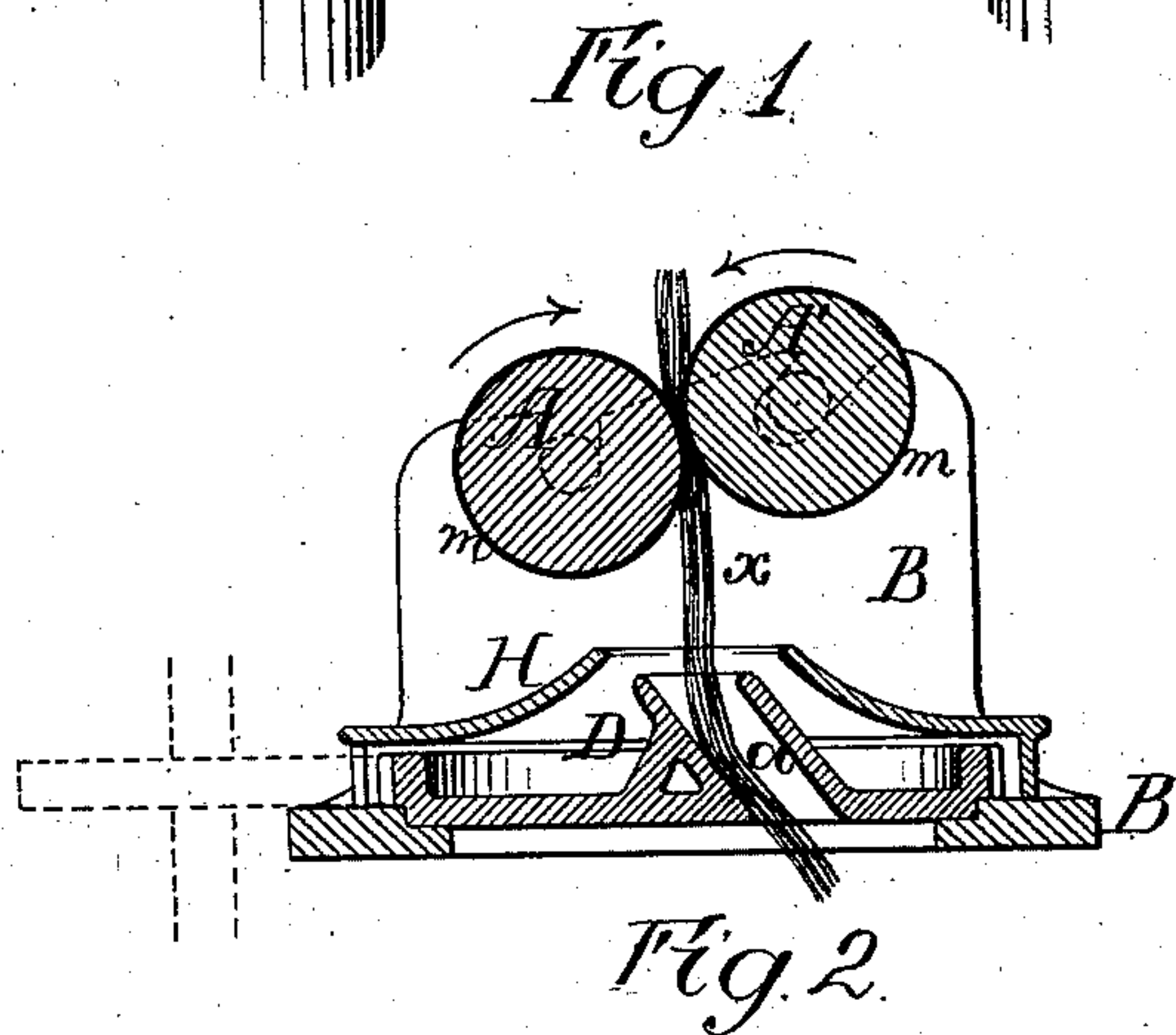
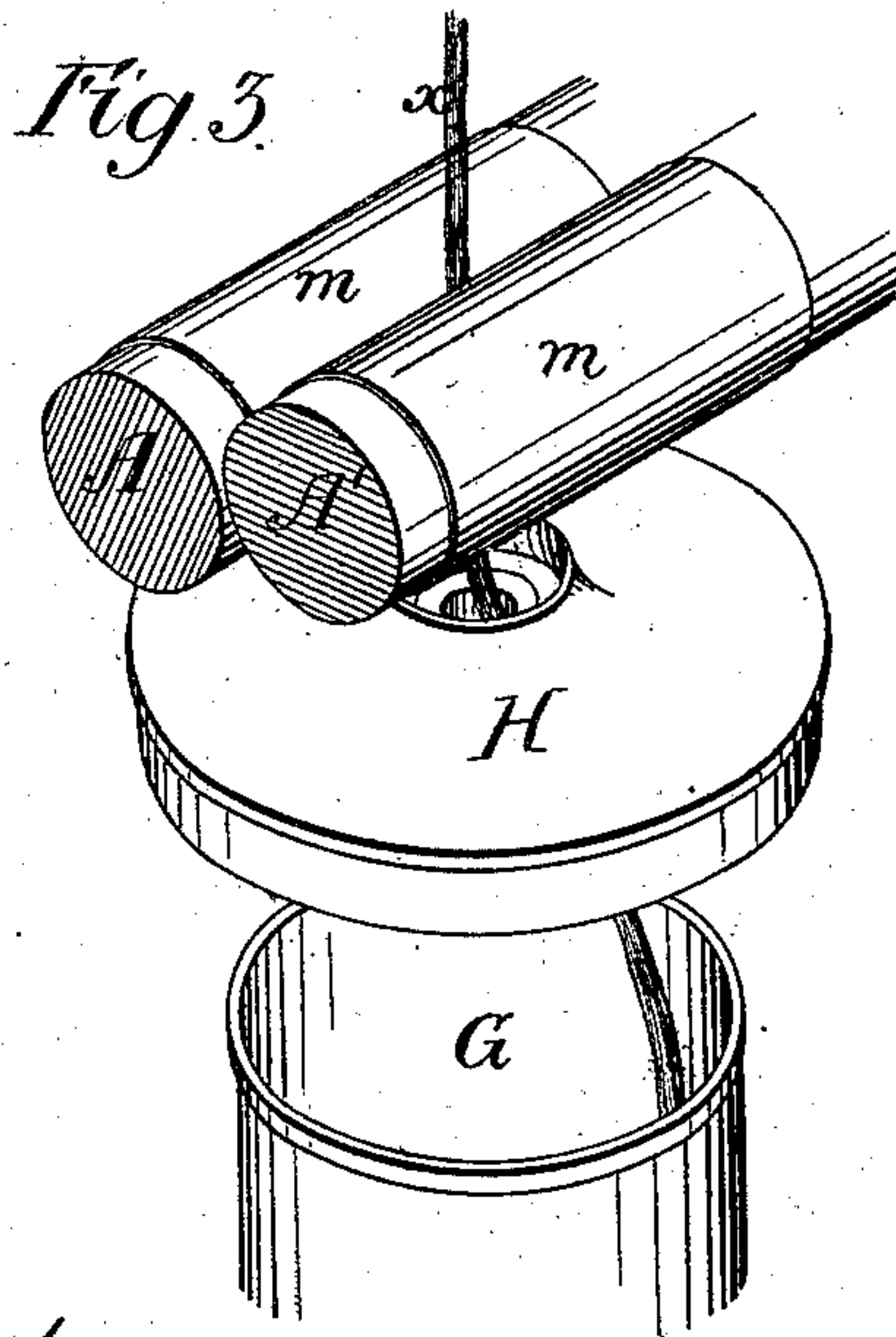
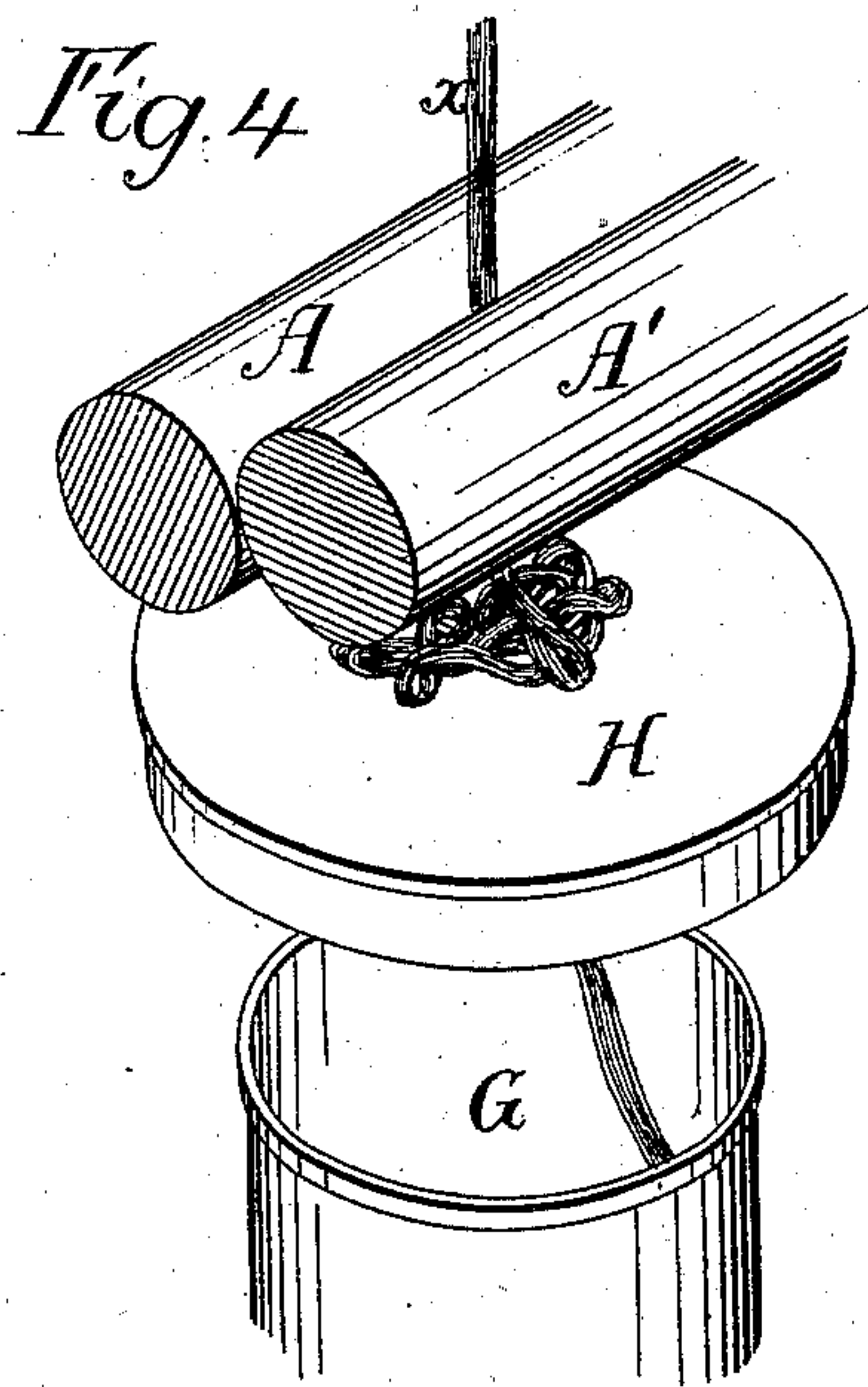


J. WOLSTENCROFT.  
Coiling Mechanism of Carding-Engines and Drawing-Frames.

No. 224,979.

Patented Feb. 24, 1880.



Witnesses  
Henry Howson Jr.  
Harry Smith

Inventor  
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by his Attorneys  
Howson and Co.



# UNITED STATES PATENT OFFICE.

JAMES WOLSTENCROFT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
JOSEPH POLLITT AND WILLIAM WOLSTENCROFT, OF SAME PLACE.

## COILING MECHANISM OF CARDING-ENGINES AND DRAWING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 224,979, dated February 24, 1880.

Application filed October 2, 1879.

*To all whom it may concern:*

Be it known that I, JAMES WOLSTENCROFT, of Philadelphia, Pennsylvania, have invented new and useful Improvements in the Coiling Mechanism of Carding-Engines and Drawing-Frames, of which the following is a specification.

My invention relates to an improvement in that class of coiling mechanism for carding-engines in which delivery-rollers are combined with a revolving plate having an inclined throat, through which the sliver delivered by the rollers is directed to the can below the said plate; and my improvement consists of the combination of the coiler with delivery-rollers clothed, or partly clothed, with paper or its equivalent, as described hereinafter, so as to prevent the interruption of the progress of the sliver through the throat of the coiler, which frequently takes place when the slivers are of dyed cotton.

In the accompanying drawings, Figure 1 is a vertical section of sufficient of a drawing-frame to illustrate my invention; Fig. 2, a side view of Fig. 1; Fig. 3, a perspective diagram without the frame; and Fig. 4, the same, illustrating the defect which my invention is designed to remedy.

A and A' are the two delivery-rolls of a drawing-frame, the roller A' being slightly above the roller A, and its journals being adapted to inclined slots (shown by dotted lines, Fig. 1) in the frame B, so that the sliver *x* shall be pressed by the roller A' against the roller A. This is an arrangement common to drawing-frames of the usual construction, as well as to carding-engines.

The frame B, which forms a part of the general frame-work of the machine, supports the coiler D, which is adapted to an annular recess in the said frame, and which has teeth on its periphery, so as to be driven by a pinion on a vertical shaft, as shown by dotted lines in Fig. 1. The coiler has an inclined opening, *a*, through which the sliver passes from between the rollers to the can G, placed beneath the coiler. A stationary cover, H, supported by the frame B, incloses the coiler, this cover, which has a central opening for

admitting the sliver, having its flange cut away at one part, to permit the pinion on the vertical shaft to properly engage in the teeth on the periphery of the said coiler.

All these parts have been heretofore used in connection with drawing-frames.

The rollers are driven, as usual, at appropriate speed, in the direction of the arrows, and the sliver is drawn downward by the two rollers, and delivered thereby through the opening in the cover and through the inclined opening in the coiler, by which the sliver is coiled as it is deposited in the can G.

Sliver delivery and coiling mechanism differing somewhat in construction from that described above is used in connection with carding-engines and drawing-frames; but as my invention is confined to the delivery-rollers it will be unnecessary to refer to any modifications of the coiling device.

When undyed cotton is operated on by the drawing-frame the slivers pass freely through the cover and coiler without interruption; but when dyed cotton is used the passage of the slivers through the coiler is frequently interrupted, the opening in the coiler being choked and the slivers accumulating in a mass between the rollers and the cover, as shown in Fig. 4, and this involves the necessity of stopping the machine in order to clear away the obstructing slivers.

Occasionally the breaking of the teeth of the coiler or of the pinion which drives it results from the accumulation of the slivers at the point indicated.

These accidents, which occur most frequently when the atmosphere is dry, I attribute to the presence of electricity; but, whatever may be the immediate cause of this interruption of the progress of the slivers, I have found that the difficulty may be entirely obviated by clothing the rollers, or those portions with which the slivers come in contact, with paper *m*, as best observed in Fig. 2. The paper should be smooth, hard, and thin. Fine, well-calendered Manila paper, for instance, will serve the purpose.

I generally use ordinary shellac varnish in applying the paper to the rolls. A strip of

thin glazed muslin carefully wrapped round  
the rollers will serve the same purpose, and  
is more durable than paper. Tracing-cloth  
may also be used as a covering for the rollers;  
5 but whatever clothing is employed it must be  
hard and unyielding.

I claim as my invention—

The combination of the coiler of a drawing-  
frame or carding-engine with delivery-rollers

clothed, or partly clothed, with paper or its  
equivalent, as set forth.

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

JAMES WOLSTENCROFT.

Witnesses:

ALEXANDER PATTERSON,

HARRY SMITH.