

(No Model.)

2 Sheets—Sheet 1.

E. W. HORNE.

YARN REEL.

No. 351,379.

Patented Oct. 26, 1886.

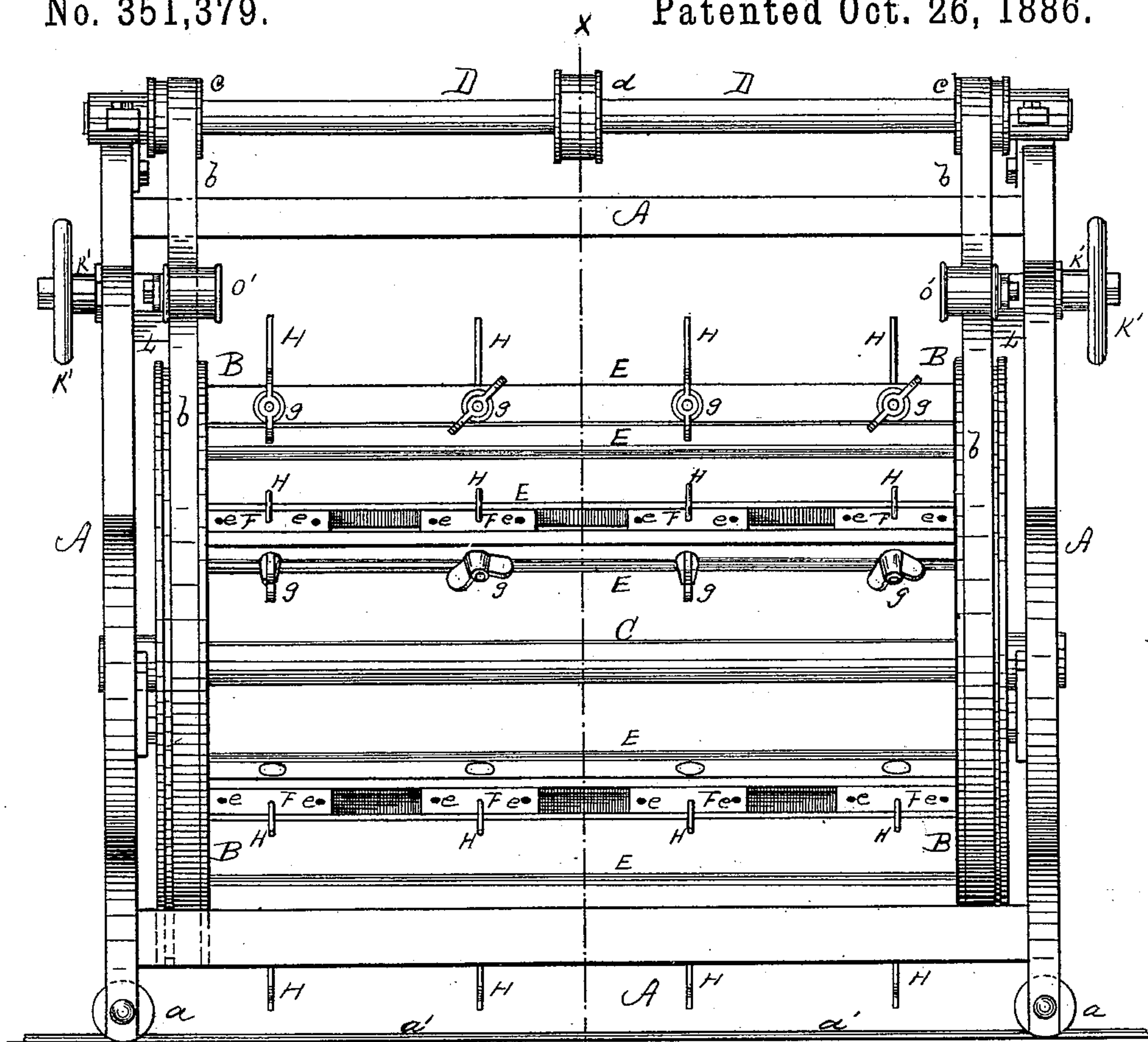


Fig. 1.

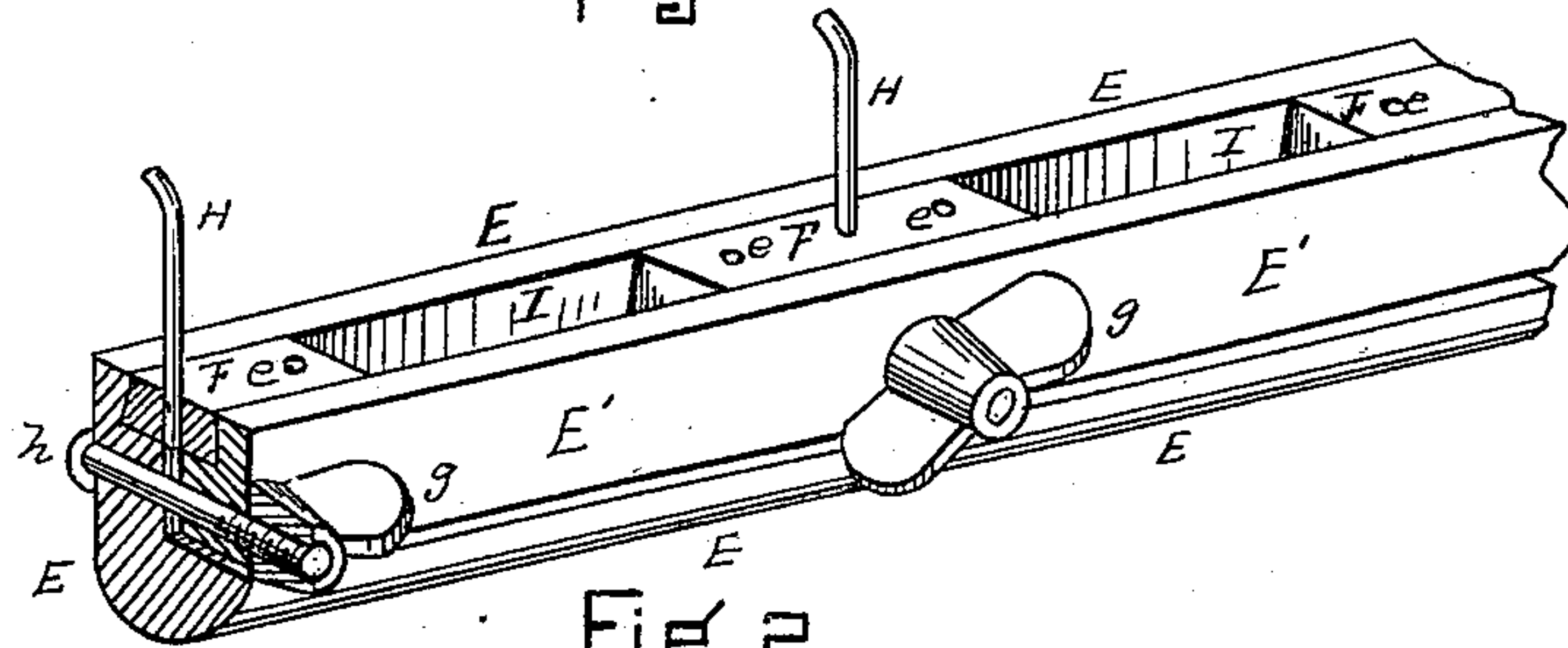


Fig. 2.

WITNESSES.

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ERASTUS W. HORNE, OF NORTH ANDOVER, MASSACHUSETTS.

YARN-REEL.

SPECIFICATION forming part of Letters Patent No. 351,379, dated October 26, 1886.

Application filed March 29, 1886. Serial No. 196,910. (No model.)

To all whom it may concern:

Be it known that I, ERASTUS W. HORNE, of North Andover, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Yarn-Reels, of which the following is a specification.

This invention relates to dresser-reels for reeling cotton or woolen yarns; and it consists particularly in the construction of the regulating-brakes, and in the means whereby the pins are rendered exactly adjustable, as below described.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is an elevation of a yarn-reel embodying my improvements. Fig. 2 is a view in perspective of a portion of one of the bars, a transverse section of said bar being also shown. Fig. 3 is a vertical section on line *x x*, Fig. 1. Fig. 4 is a detail elevation showing the braking device, the casing thereof having been removed. Fig. 5 is a sectional detail view of the same. Fig. 6 is a detail showing the position of the eccentrics in the brake mechanism. Fig. 7 is an elevation of the shaft provided with said eccentrics.

A is the frame, provided with the ordinary wheels, *a*, so that the reel may be moved as desired upon the track *a'*.

B B are the two large band-wheels of the reel, fixed upon the shaft C, which has its bearings in the frame A. The wheels B are provided with belts *b*, which extend therefrom around the pulleys *c* on the driving-shaft D, upon which is fixed the driving-pulley *d*, to which power is applied.

E E are the bars extending horizontally from one to the other of the wheels B. In reels as ordinarily constructed these bars are provided with numerous perforations or holes made directly therein, into which are inserted, as desired, pins for holding the yarn. In practice it has been found difficult to exactly adjust the pins on one bar with relation to the positions of the pins on the other bars. In my invention, as is seen in Fig. 2, the perforations *e*, for receiving the pins H, are made in slides F, whose sides are beveled, as shown, and which slide in the correspondingly-shaped longitudinal groove I in each bar E. The portion E' of each bar is made of a separate piece from the rest of the bar, and is secured thereto by

means of bolts *h*, inserted as shown. These bolts are provided with thumb-pieces *g*. There are in each bar usually about ten slides, and as many bolts and thumb-pieces. Pins are set in the holes *e* in the slides, and their positions are adjusted by loosening the thumb-pieces *g*, thus removing the pressure from that portion of the part E' of the bar, so that the slide nearest the thumb-piece may be moved in either direction, and when set in the exact position desired the thumb-piece is tightened and the slide is immovable. Its beveled sides and the correspondingly-beveled sides of the groove I prevent the slides from being liable to drop or be drawn out of said groove.

In opposite sides of the frame A shafts K have their bearings, said shafts being operated by the hand-wheels K'. Each shaft passes through the frame into a box, L, supported by said frame, and has rigidly secured to or integral with it the eccentrics *l m n*, which play in said box. The eccentric *l* plays in the ring *l'*, of the shape shown, inside the case L. From this ring extends horizontally a bar, N, to which is adjustably secured the wheel N'. The eccentric *m* plays in the ring *m'*, of the shape shown, inside the case L. From this ring extends horizontally a bar, O, to which is adjustably secured the wheel O'. The eccentric *n* plays in the opening P'' in the brake P, the shoe of which, P', rests upon the wheel B. It will be seen from the relative positions of the eccentrics upon the shafts K that by turning the wheels K' in one direction the eccentrics *n* push the brakes P down upon the wheels B of the reel, and at the same time the cams *l* and *m* push the bars N and O outward, so as to take the wheels N' and O' off from the belts *b*, the result being that the pressure of the belts is taken from the wheels B and the brakes applied simultaneously thereto. By turning the wheels K in the opposite direction the eccentrics operate to lift the brakes from the reel-wheels and press the wheels N' and O' upon the belts *b*, thereby tightening the same and communicating motion to the reel. Thus it will be seen that the rotation of the reel and the relative positions of the pins H are exactly regulated and adjusted.

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

1. In a yarn-reel, the combination of the bar E, consisting of the main portion and the detachable portion E', provided with the longitudinal beveled groove I, with the bolts *h*, thumb-pieces *g*, beveled perforated slides F, and pins H, substantially as and for the purpose described.
2. The combination of the frame A, shafts K, provided with the eccentrics *l*, *m*, and *n*, and wheels K', boxes or casings L, rings *l'* and *m'*, provided with the bars N and O, having the wheels N' and O', and brakes P, provided with the openings P'', the reel having the wheels B, the belts *b*, pulleys *c*, and shaft D, all substantially as and for the purpose set forth.

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Witnesses:

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