

(No Model.)

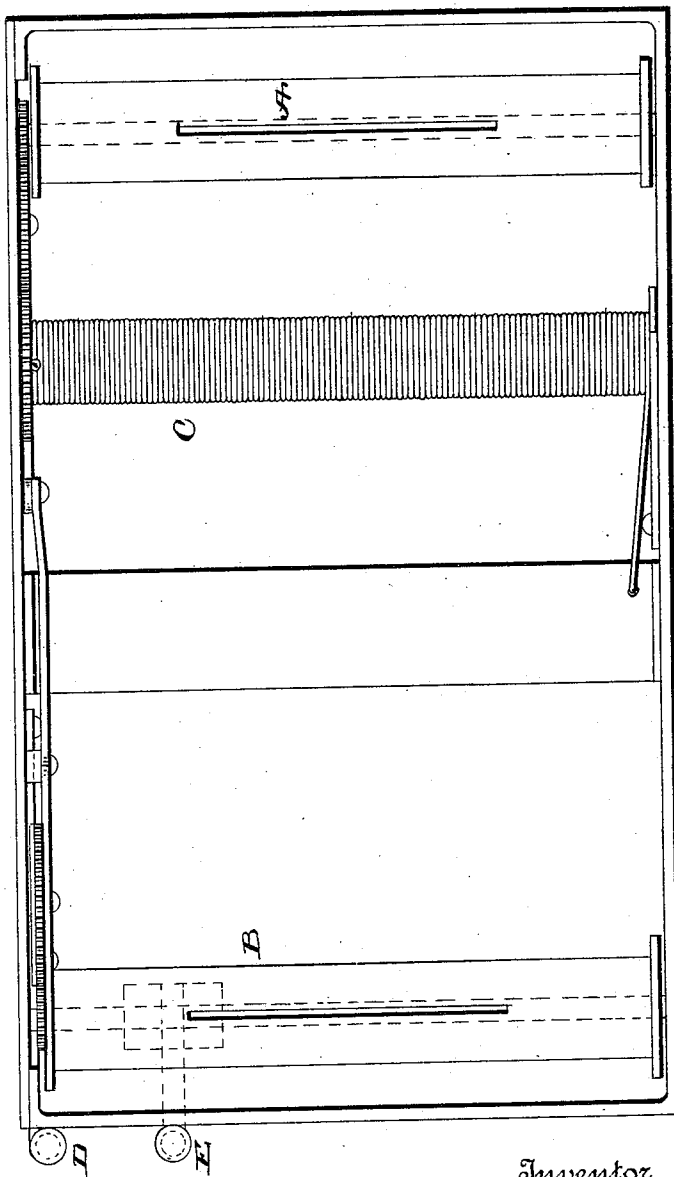
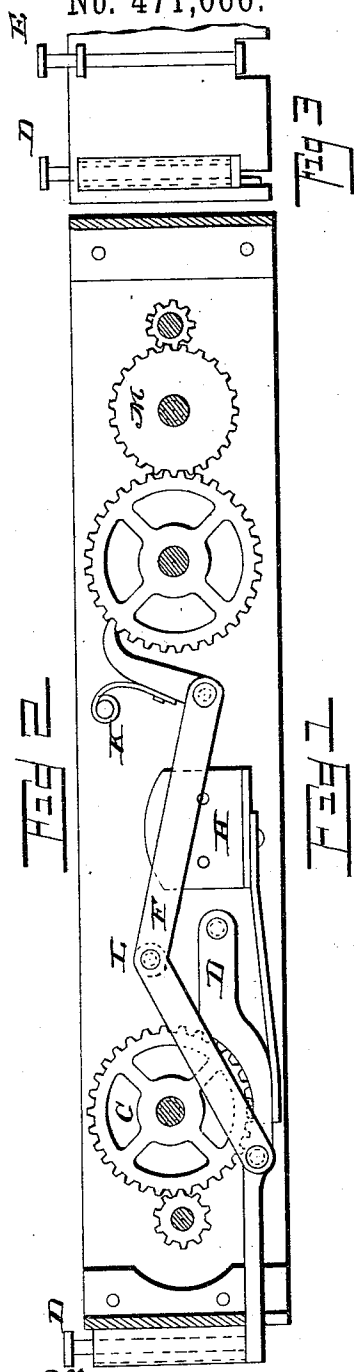
2 Sheets—Sheet 1.

C. C. BOWEN.

DEVICE FOR MOVING AND DISPLAYING SPEAKERS' MANUSCRIPTS.

No. 471,066.

Patented Mar. 15, 1892.



Witnesses

John Danne
W. W. Deane

Inventor

Calvin C. Bowen

By his

Attorney

J. D. Zerbe

per L. Deane att.

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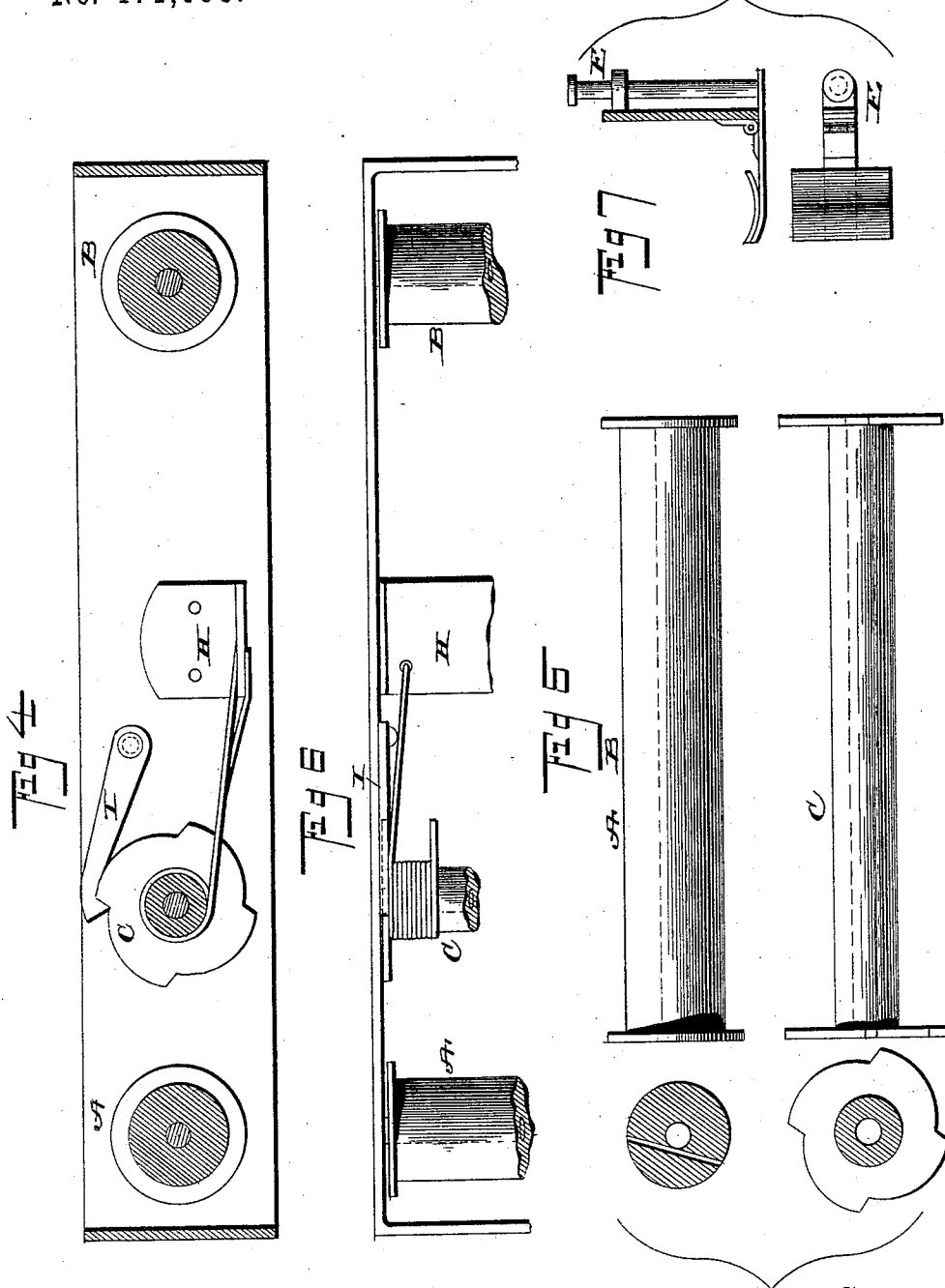
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John Smirne
W. W. Deane.

Inventor

Calvin C. Bowen.

By his Attorney

J. D. Berbe
per Deane & Co.

UNITED STATES PATENT OFFICE.

CALVIN C. BOWEN, OF SARATOGA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
WILLIAM RICE, OF SAME PLACE.

DEVICE FOR MOVING AND DISPLAYING SPEAKERS' MANUSCRIPTS.

SPECIFICATION forming part of Letters Patent No. 471,066, dated March 15, 1892.

Application filed February 13, 1891. Serial No. 381,395. (No model.)

To all whom it may concern:

Be it known that I, CALVIN C. BOWEN, a citizen of the United States, residing at Saratoga, in the county of Santa Clara and State of California, have invented a new and useful Device for Moving and Displaying Speakers' Manuscripts; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a cheap, automatically-operated, and efficient piece of mechanism adapted to receive a speaker's notes or his entire address, which is wound on a continuous web, and the mechanism is completely inclosed by a case of any suitable size adapted to be held in the speaker's hand or to rest upon his reading desk or table for the purpose of holding his notes or manuscript while speaking or reading therefrom. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of the case, showing the mechanism therein. Fig. 2 is a vertical longitudinal section of the left side of the machine, showing the operating mechanism. Fig. 3 is a view of the lower end of the case; Fig. 4, vertical longitudinal section of the right side, looking at the same from the left side; Fig. 5, end views of the spring-drum and one of the rollers; Fig. 6, top view of the right-hand side of the case and mechanism, and Fig. 7 top and side views of brake for controlling the mechanism.

In constructing my invention I first provide a suitable case. This I prefer to have made in the shape of a book or rectangular in form. Within the case thus formed I place the entire mechanism, so that it will be neat in appearance and without any exposed mechanism or apparent means of manipulating the same. I place at the upper end of the case a cross-roller A and at the lower end a similar roller B. Each end of these rollers has an annular flange to keep the paper or web which is wound thereon in place, and each roller is grooved or slotted to provide a means for attaching the end of the web thereto. One end of each roller has a small gear-wheel, as shown.

Near the upper end of the case and parallel with the roller A is a drum C, on which is wound a spiral spring, one end of the spring being attached to the drum and the other end of the spring to a cross central bar H. The end of the drum C has a gear-wheel on line with the small gear on the end of the roller A, and intermediate between the large and small gear is a gear-wheel M, by means of which motion is imparted from the drum C to the roller A. The other end of the drum C has an escapement-wheel and a coacting pawl I, hinged to the frame, which serves to lock and hold the wheel when the spring is wound up.

On a line and in engagement with the small gear on the end of the roller B is a large gear-wheel G, said wheel having on one side and attached thereto a wheel or disk slightly smaller than the diameter of the gear G, and this disk has a notch at one point in its circumference. Beneath the disk is a horizontally-disposed lever D, the upper edge of which has a tooth to engage with the notch of the disk. The inner end of the lever is hinged to the vertical wall of the case, while its forward end projects forward through the case and extends up to form a finger-key for manipulating the same.

A supplemental lever F, hinged centrally to the vertical wall of the case above the main lever D, has its rear end extending back to the large gear on the end of the drum C, and hinged to the rear end of this lever is a pawl, which engages with the gear on the drum. A spring K, bearing against the pawl, serves to hold the pawl constantly in contact with the gear. The forward end of the lever F extends downwardly at an angle to the main lever D and is hinged thereto, so that whenever the forward end of the main lever is depressed to release the gear-wheel G the rear end of the supplemental lever F also raises, and, by means of the pawl against the wheel, gives an initial movement to the roller A to start it in motion.

The braking mechanism is composed of a vertical keystone E, having at its lower end a right-angled bend, which extends into the case beneath the roller B and is provided with a curved bearing surface or pad, against which the roller moves when the brake is applied. The key-stem E is hinged to the case at the

point where the horizontal limb enters the case, so that a slight pressure on the key will bring the curved surface in engagement with the roller, and thus enable the user to control its movement by the degree of pressure exerted.

In operation the entire address, sermon, lecture, or other matter is written or printed on a continuous web, which has one end attached to the roller B and is entirely wound thereon. The other end of this web is then drawn up to the roller A, attached thereto, and the pawl I disengaged from the escapement-wheel on the end of the drum. The spring on the drum C thereupon draws the web tight, and the roller B is held from turning by the lever D. When it is desired to move up the web, pressure on the lever D releases the wheel G, and the spring immediately turns the roller A, drawing up the web until the wheel G has made a revolution, when the notch or detent again engages with the tooth on lever D and holds the same. If the movement of the rollers is too rapid, a slight pressure on the brake-lever E retards it. Thus I have under the control of two keys all the mechanism for manipulating the web or unrolling the same a distance equal to one exposed page and checking the same after it has traveled the required distance, or it may be checked at any point. It will thus be seen that no part of the mechanism is exposed to view, and when in use on a reading-desk it can be manipulated by simply touching the keys, thus exposing the unread portions of the web to view without attracting any attention on the part of the audience, which is a great desideratum on the part of public speakers who are compelled to use notes or manuscript.

What I claim as new is—

1. In a device for moving and displaying manuscript for speakers' use, the combination, in an inclosing case having internally at each end a roller, of mechanism automatically operating the said rollers and the web having thereon the text or manuscript in the manner substantially as set forth, and a suitable tripping-key whereby the web can be moved forward from one roller to the other at each pressure of the tripping-key a distance equal to the space exposing the face of the web.

2. A manuscript-holder composed of an inclosing case with mechanism therein which automatically moves forward a continuous web from a transverse roller at one end pro-

vided with tripping mechanism to a roller at the other end of the case having an actuating-spring a distance equal to the exposed face of the web at each pressure of the tripping-key, in combination with an independent braking-lever for regulating the speed of the rollers, substantially as set forth.

3. A manuscript-holder composed of a case entirely inclosing the mechanism, which consists of rollers for receiving the manuscript-web, a drum with a coiled spring thereon, gear-wheels for transmitting motion from the spring to the rollers, a tripping-lever for holding and releasing the web, and a braking-lever for regulating the speed of the web, substantially as set forth.

4. A manuscript-holder having in one end of the inclosing case a slotted and grooved roller, and a spring-operated shaft or drum with intermediate gearing, in combination with a grooved or slotted roller at the other end of the case, a gear-wheel on the shaft of the roller, and a large intermeshing gear-wheel, a tripping-lever engaging therewith, and a braking-lever in engagement with said roller, substantially as set forth.

5. A manuscript-holder having in one end of the inclosing case a spring-operated shaft or drum provided with a gear, a roller having a spur-gear, and an intermediate connecting-gear constituting one set of gearing, in combination with a roller in the opposite end of the case, having on one end a small gear, and a large intermeshing gear comprising the other set of gears, a tripping-lever for operating the latter set of gears, and a supplementary lever connecting with said tripping-lever and provided with a pawl in engagement with the first set of gears, substantially as set forth.

6. In manuscript-holders, the combination of an inclosing case having a roller and spring operating mechanism at one end and at the other end of the case a releasing-roller for holding the other end of the web, and suitable tripping and brake levers connected therewith, and a lever extending from the tripping-lever to the spring-actuated mechanism, whereby the spring-actuating roller is released simultaneously with the tripping of the other roller, substantially as set forth.

CALVIN C. BOWEN.

Witnesses:

W. S. WEBSTER,
ALBERT HOUSTON.