

(No Model.)

2 Sheets—Sheet 1.

A. P. BROWN & M. D. STERN.

TICKET REEL.

No. 331,863.

Patented Dec. 8, 1885.

Fig. 1.

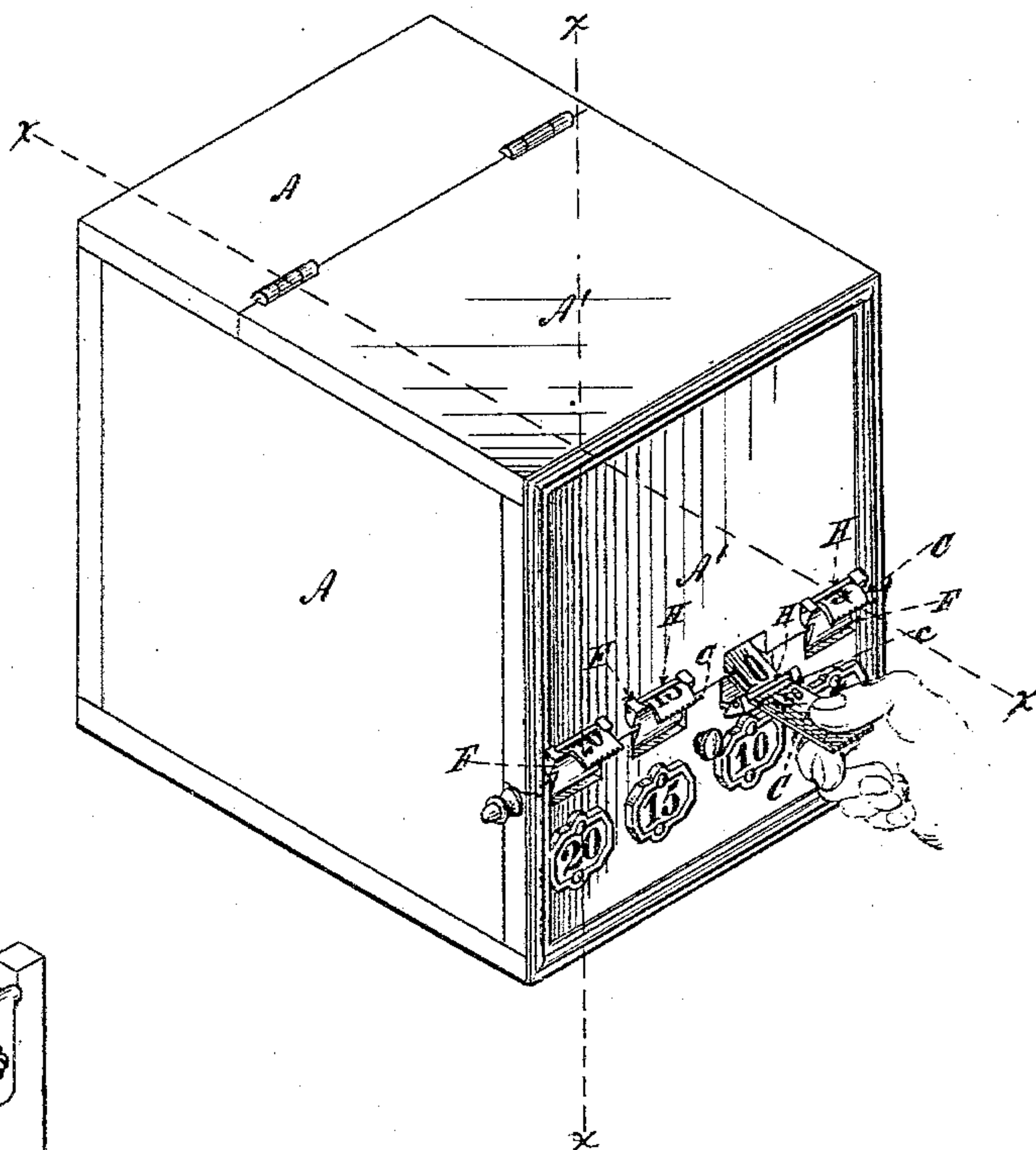
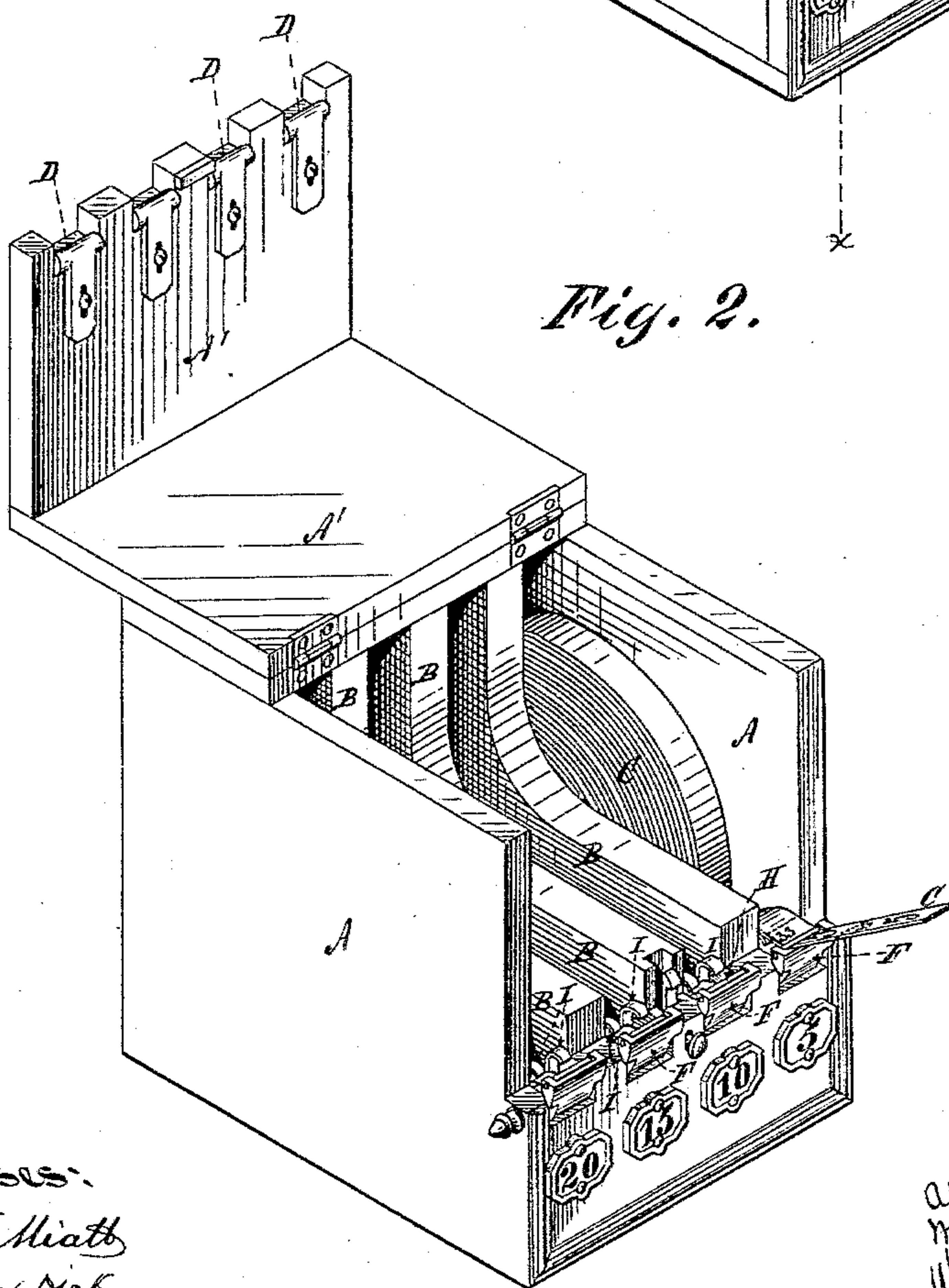


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

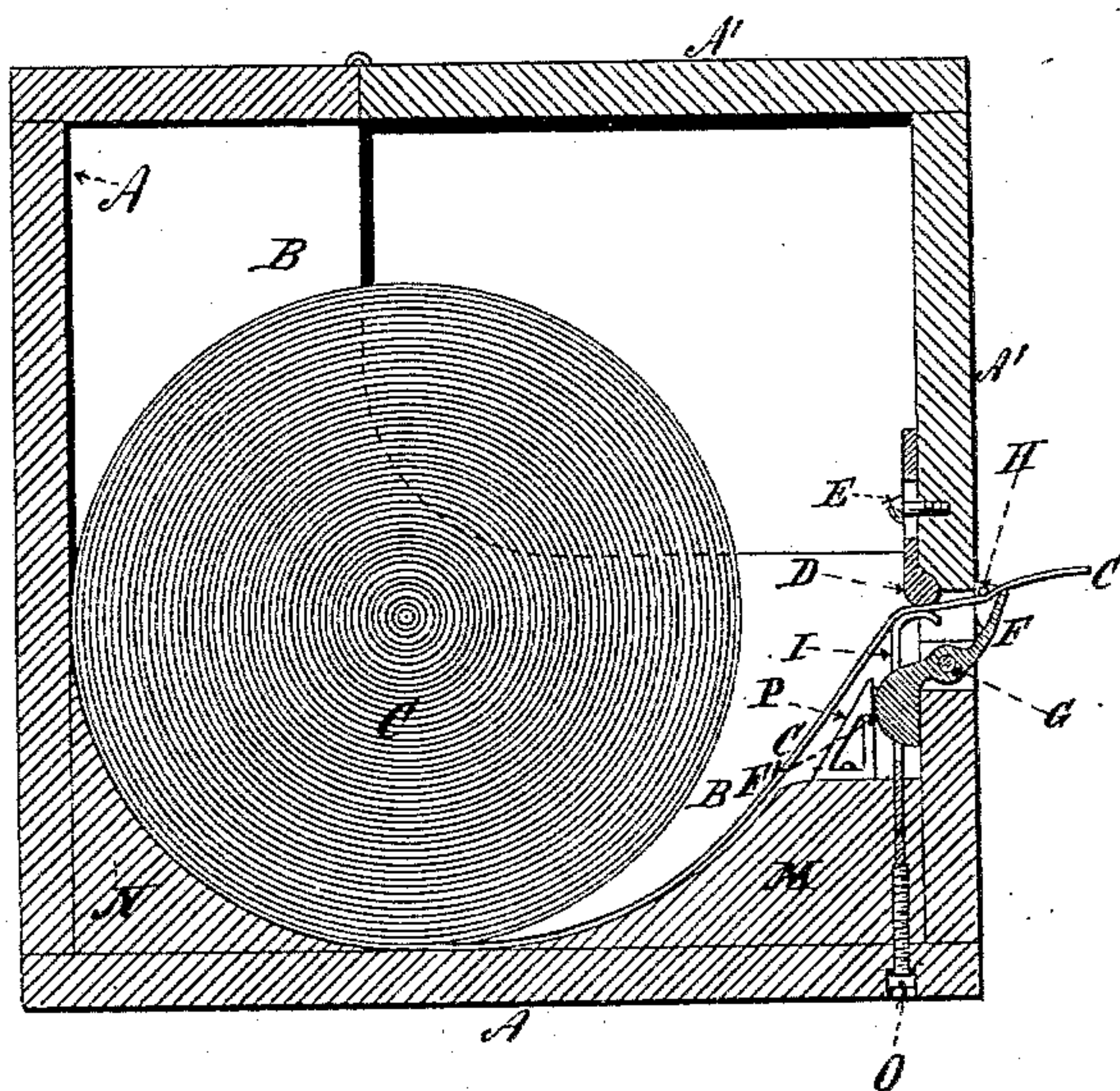


Fig. 4.

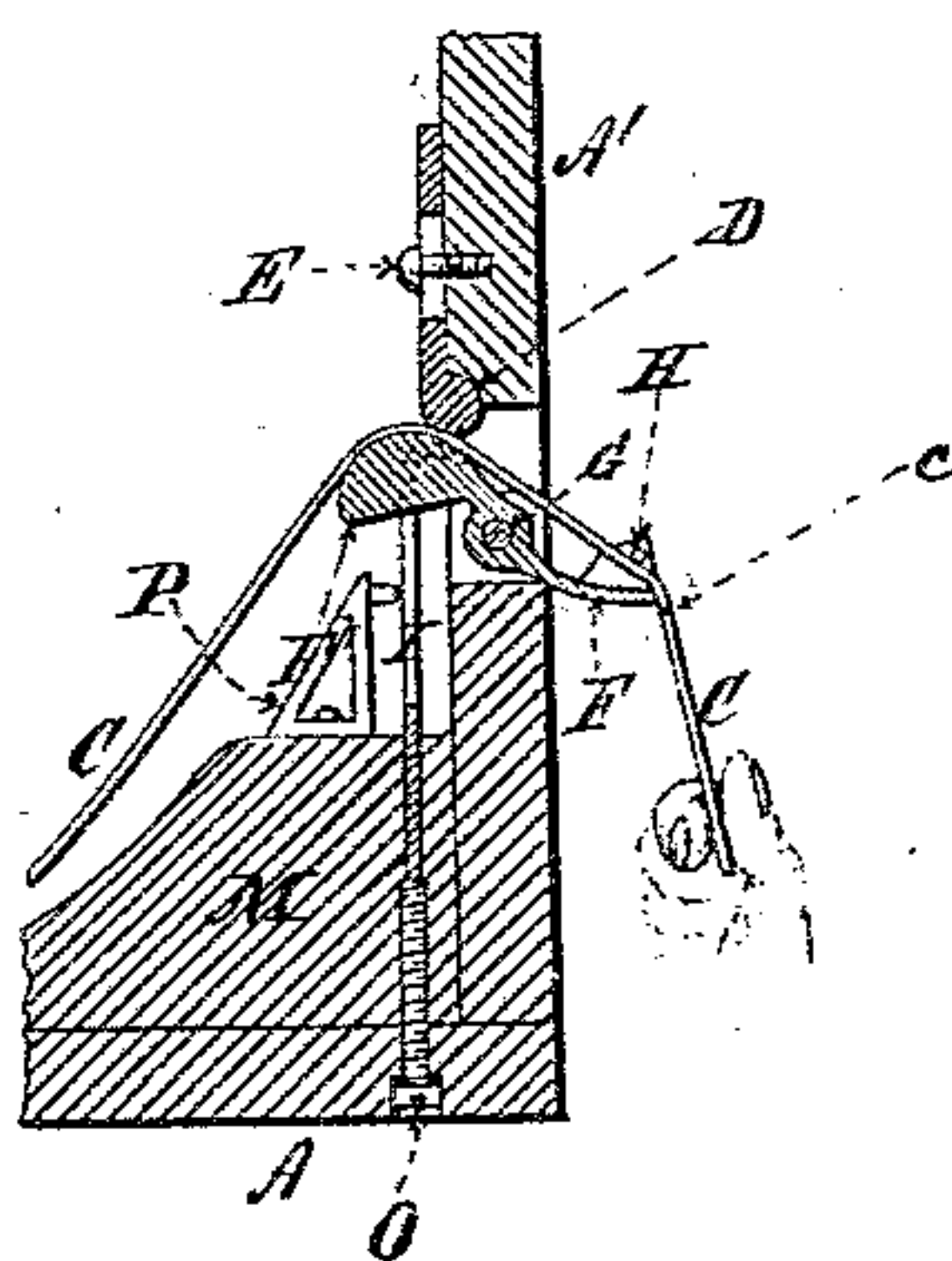


Fig. 5.

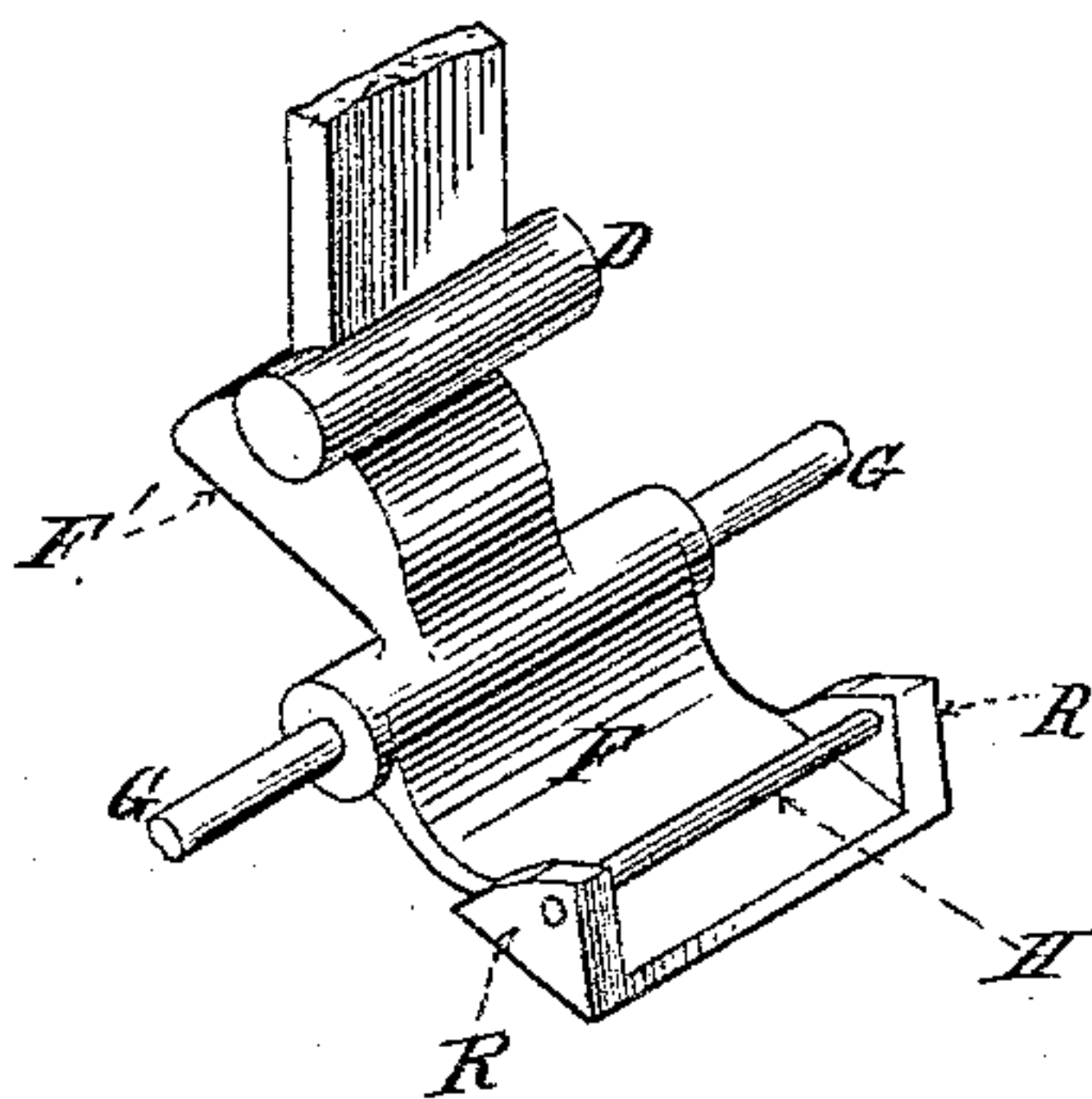
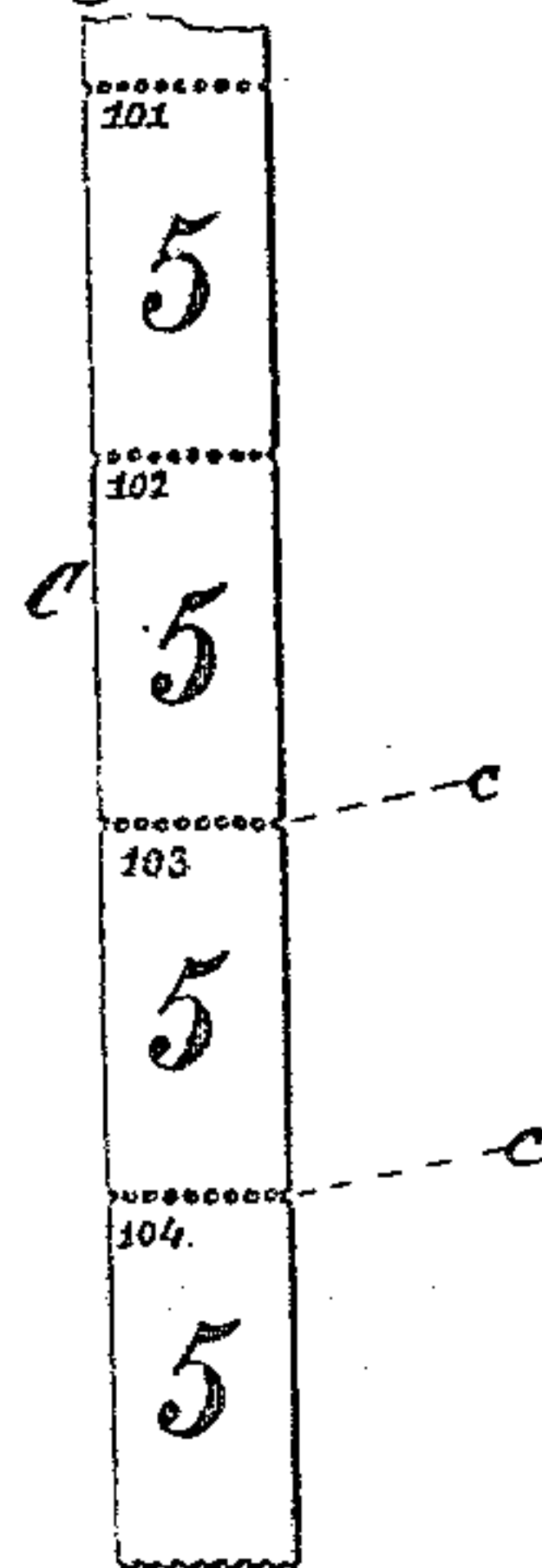


Fig. 6.



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UNITED STATES PATENT OFFICE.

ADDISON P. BROWN AND MAX D. STERN, OF NEW YORK, N. Y.; SAID
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TICKET-REEL.

SPECIFICATION forming part of Letters Patent No. 331,863, dated December 8, 1885.

Application filed May 9, 1885. Serial No. 164,966. (No model.)

To all whom it may concern:

Be it known that we, ADDISON P. BROWN and MAX D. STERN, both of us being residents of the city, county, and State of New York, and both of us citizens of the United States, have jointly invented a new and useful improvement in ticket-reels or apparatus for handling and keeping count of checks or tickets, of which the following is a full, true, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of the exterior of our apparatus as it appears when in use. Fig. 2 is a perspective view of the same with the lid opened, showing the interior arrangement of the same and its contents. Fig. 3 is a sectional view of our apparatus, taken in a plane passing through the dotted lines X X X, shown in Fig. 1. Fig. 4 is a sectional view, more particularly of the clutch-guide and supporting apparatus, taken in the plane aforesaid, and showing the position of the parts when actually clutching the ticket-strip. Fig. 5 is a perspective view of the clutch-guide and supporting apparatus detached from their fastenings, and Fig. 6 is a portion of a ticket or check strip such as may be used in our said apparatus.

Similar letters in all figures indicate similar parts.

Our invention relates to the method of and apparatus for storing, arranging, and handling checks or tickets wherever the same are used as records for ascertaining the correctness of returns made of any transactions which such checks or tickets are employed to mark or chronicle—such, for instance, as the returns of money received by a cashier or other agent intrusted with the handling of cash-receipts.

The object of our invention is to provide an inexpensive and simple method of ascertaining the exact number of checks or tickets made use of as aforesaid during any given time, and which will dispense with the necessity of counting such checks or tickets individually, and also to provide an apparatus and machinery which will afford requisite protection to the checks not made use of, and will keep the same in an orderly condition, ready for immediate use, and will enable them to be made use of conveniently, accurately, and with the least possible manipulation.

We attain the objects desired by means of our said invention as follows:

Tickets or checks are marked or designated as desired on continuous strips of paper or other suitable material, each strip containing as many tickets as can be conveniently handled by our apparatus at one time, and each ticket being partially separated from its neighbor either by indentation or (as we prefer) by a line of perforations, as shown in Fig. 6. Each ticket or check must be marked in such a way as to indicate clearly its number in the regular order of the tickets as contained in said strip. We prefer to mark each ticket consecutively with its proper number as a member of the series contained in said strip, as shown in Fig. 6; but it is evident that series of letters or any other prearranged system of marking might be employed.

We prefer to have each ticket belonging to any one strip of tickets used to designate the same numerical amount or transaction—for instance, to have all five cent tickets or checks on one strip, ten-cent tickets on another, &c.; and in addition to the denomination of the ticket being marked thus it is evident that the tickets of the various denominations may be still further distinguished by printing them on different-colored papers or other material constituting the substance of the strip. It is apparent that by thus consecutively numbering or designating the tickets on a strip it becomes possible to ascertain the exact number of tickets detached from the strip within a given time by comparing the number of the end ticket at the beginning of that time with the number of the end ticket at the end thereof, and this without the necessity of counting the separate tickets which have been detached in the interval. By this means a great saving of time and labor is attained where large numbers of tickets have been used, and the chances of miscalculation or deception greatly diminished, for the consecutive numbers on the tickets, being fixed and in regular order, cannot be changed or in any way manipulated to indicate a false result.

To attain a convenient and simple manipulation of the tickets for use in registering the transactions described, or others of kindred nature, we make use of our apparatus shown in the drawings. The strip of tickets being

rolled up, as shown at C, Figs. 2 and 3, is placed within a suitable case, which may, as far as external shape and appearance is concerned, be framed in any way to suit the taste, fancy, or convenience of the user. The interior of such case should be a trifle wider than the ticket-strip, so as to confine it enough to prevent its disarrangement, and not sufficiently to impede its rolling easily within it. The height and depth of such interior will depend wholly upon the number of tickets which it is desired to insert and use at any one time; but care should be taken not to make the roll of tickets to be used so great as to be unduly heavy, and thus impair the facility with which it is made to roll by the comparatively slight impulse given in pulling on the outermost ticket thereof, as hereinafter described.

It will be seen by reference to Fig. 3 that the bottom of the interior of the roll-case is curved, so as to present its concavity to the roll, and that said curve is of a greater radius than the roll. By this means is aided the rolling backward of the ticket-roll to its proper position in the interior of its case after any impulse causing it to roll or draw forward, and it is thus assisted in keeping a uniform and proper position in the case relative to the remainder of the apparatus to be described.

The curved surfaces referred to may be made in any well-known way. In the drawings they are shown constructed of blocks properly shaped and fitted into the corners of the case, the case in this instance being a square one; but strips of metal properly secured would of course provide equally operative curves; or the bottom of the box itself might be so shaped as to present the curved surfaces required without further addition.

That the ticket-roll may be readily inserted in its case for use, the case is constructed to open at the top or either of its sides sufficiently wide to permit the introduction of the size of roll required.

In the drawings the case is shown constructed so as to open on hinges part of the top and front simultaneously, as plainly indicated. We prefer this method of opening the case, because access to the clutching and binding apparatus is thereby more readily secured; but wherever the position in which the case is to be used does not admit of such opening it is apparent that it may be opened, as stated, by removing in any well-known way either of the sides or the top thereof. The strip of tickets is led from the roll to the front of the case for use and through the side of the case to its exterior by an opening sufficiently large to enable it to pass freely and at the same time be operated upon by the clutching and retaining apparatus about to be described. It is of course apparent that it is highly desirable to render the handling of the ticket-strip an easy and convenient matter from the exterior of the case. Most people a part of whose business it is to detach a ticket from

the strip do so in more or less haste, and have often one of their hands occupied at the time in performing the business for which they are employed, as in the case, for instance, of bartenders or waiters, who will often approach the case to detach a ticket with one hand loaded with glasses or dishes.

By our invention we have succeeded in providing an apparatus which secures the objects desired as aforesaid, and enables the ticket-strip to be conveniently supported and retained in position, and the ticket at the extremity thereof to be readily detached from the strip with one hand and without in any way disturbing the roll of tickets within the case.

Our apparatus as shown in the drawings consists of a binding-lever, F F', turning upon or provided with an axial rod, G G, which is sustained upon suitable bearings fastened to the case at the sides of the aperture through which the ticket-strip is drawn. We prefer that the binding-lever shall turn upon the rod, instead of the rods turning on the side bearings, as in this way a row or series of levers in the same series of cases can all be threaded and turned upon the same rod; but it is obvious that either form of construction could be employed with equivalent results so far as the action of the binding-lever is concerned. The lever should be constructed of some material possessing rigidity sufficient to enable it to exert a sufficient pressure on the bearing or binding-rest D to clinch or hold the ticket-strip firmly there when the outside end of the lever is depressed preliminarily to tearing off the end ticket. Any metal will answer for the construction of the lever, or any substance, such as hard rubber, &c. The inner extremity of the lever F' should be made considerably heavier than the external arm, F, or weighted in any well-known manner, in order that its normal position, when not in actual use, may be as shown in Fig. 3, and the lever should turn easily on its axis or bearings, so that when released from any outside pressure it will immediately be dropped by the action of gravitation into the last-mentioned position, thereby bringing its external arm or surface over the aperture in the case, which becomes closed in consequence, thereby presenting a neat appearance, and thereby holding the end of the ticket-strip in a convenient position for future use. The upper surface of the inner arm of the lever F is preferably made rounded, as shown in the drawings, and carefully adjusted as to shape and position, so as to engage tightly with the bearing or binding-rest D when the exterior arm of said lever F is depressed, as shown in Fig. 4, and also so adjusted and shaped as to cause it to engage with or press upon said binding-rest D along a line lying back of and within the line along which the said binding-rest D is engaged by the check-springs I I. By this adjustment it is apparent that the pressure of the check-springs I upon the ticket-strip is

not disturbed by the binding or clutching of said ticket-strip between the lever-arm F and the binding-rest when the ticket-strip is clutched by depressing the outside arm of the lever F.

It is apparent that the lever F F' may be made of several different pieces properly secured together, or in one piece, as we prefer and have shown in the drawings, and also it is apparent that the shape of said lever may be altered without in any way departing from our invention. The external arm of the lever F may be provided with a guide-rod, H, between which and the outer lip of the lever the ticket-slip is threaded, and thus retained or assisted in remaining in position convenient for use. The guide-rod H may be set in projections R R, extending inward from the outer surface of the lever, and which assist in keeping the outer lip of the lever from too closely approaching the exterior of the case A and pinching the ticket-strip there. The outer surface of the lever F should be smooth and rounded, so as to enable the fingers to slip over it easily and be guided thereby to the ticket when the hand is extended toward it in the act of seizing a ticket.

D is a bearing or binding-rest firmly secured within the case, so that its engaging or bearing surface, which should be preferably rounded, may meet and press with some force upon the heads of the check-springs I I, and also meet and afford firm resistance to the pressure of the lever-arm F' when the same is raised to it by the depression of the outer lever-arm, F. A convenient way of securing said bearing or binding-rest is by a screw, E, passing through a slot in the stem of said binding-rest, as shown in Figs. 3 and 4, as thereby more delicate adjustment may be effected.

The binding-rest or bearing D we prefer to construct of sufficient width to completely span the opening in the case to which it is applied, though it might of course be made narrower without departing from our invention. We prefer to construct it of metal or any other material possessing the requisite strength and rigidity, and those parts of it along which the pressure of the lever is exerted might with good results be made of rubber or any other substance which would increase the friction upon the ticket-strip at the time the same is pressed against it by the lever-arm F'.

I I are two check-springs secured on either side of the inner arm of the lever F'. These springs should be so adjusted as to exert sufficient pressure to hold the ticket-strip between them and the bearing or binding-rest D, and to hold the said ticket against the latter outside of the line of pressure of the inner arm of lever F when same is raised to clutch the ticket-strip. We prefer to adjust the same by means of the screws O O, as is plainly shown in the drawings, and the heads of the springs should be so bent and the spring itself adjusted so that they will comparatively read-

ily allow the ticket-strip to be drawn outward of the case, and will present very considerable, if not absolute, resistance to its being pushed inward into the case.

If deemed advisable, it is apparent that another bearing or binding-rest besides that shown in the drawings might be placed along the line of the ticket-strip and the same provided with other check-springs or a check-spring, to still further prevent the possibility of the ticket-strip slipping backward into the case; but we do not deem such duplication of parts essential to the successful working of our apparatus.

The operation of the check-springs may be still further assisted by a fixed brace applied directly behind each of them, as shown in the drawings by the braces P. The braces or stops P prevent the spring from yielding backward and inward, while allowing same to yield forward, thus leaving the spring free to release its pressure on the ticket-strip and against the bearing when the strip is pulled forward and outward, and tending to prevent the spring from yielding or releasing its said pressure when the strip is pulled or pushed inward from any cause.

It is manifest that where our system and apparatus for registering and handling checks and tickets is made use of in establishments where tickets of various denominations are required, a strip of tickets marked to represent each of the required denominations should be employed. In such instances a case for each roll of tickets should be constructed, which is easily done by separating each roll by partitions within the same general external case, each roll being provided with its respective aperture, lever-springs, binding-rest, &c., as described.

In the drawings a case is shown adapted to contain four rolls of ticket-strips of denominations of five, ten, fifteen, and twenty, as designated by numbers marked on the outside of the respective apertures. The number of rolls employed may thus be indefinitely extended.

The materials out of which the case shall be constructed are such as may suit the taste or fancy of the user, care being had that such materials be sufficiently rigid for the uses described. The case shown in the drawings is of cabinet-work; but same might be made of metal, and thus rendered possibly lighter and more compact. The lid of the case may be secured by a spring-catch, as shown in the drawings, or locked securely, if preferred, in any well-known way.

The operation of our system and apparatus is apparent. The ticket-roll being inserted in its case, the exterior end of the ticket-strip is led from the bottom of the roll toward the aperture in the case. It is then led over the upper surfaces of the check-springs I I; thence it is still further pulled forward and through the aperture in the case and passed or threaded between the guide-rod H and the outer lip of the lever F. The check-strip is now in posi-

tion for use, and the lid of the case may be closed and locked. In the construction shown in the drawings, the closing of the lid causes the bearing or binding-rest D to press down upon the ticket-strip and press it upon the check-springs I I, thus retaining it in position and preventing it from slipping backward into the case, while allowing it at the same time to be drawn forward and outward. The apparatus is now in position to be used. To withdraw a ticket from the check-slip, it is only necessary to seize with the thumb and forefinger of one hand the end of the ticket projecting slightly already from the external lip of the lever F, as shown in Fig. 3, and pull it gently outward and downward until the line of perforations separating the ticket held in the fingers from the next adjoining ticket is carried past the external lip of the lever F, and then pull downward with sufficient force to break off the ticket held in the fingers from said adjoining ticket, and thus from the remainder of the ticket-slip. It is evident that the pull downward described causes the inner end of the lever F to rise against the bearing or binding-rest D, and there press the ticket-strip with sufficient force to hold it in position while the end ticket is torn off. The lever being relieved the moment the ticket is torn off, the action of gravity on the weighted inner end of the lever F' causes same to fall back to its original position within the case and brings the exterior end of the lever F into its original position, holding the end of the next ticket ready for use, as at the commencement of the operation. Care should be taken to regulate the length of the tickets so that the ticket following the one which is being torn off may be clutched between the inner arm of the lever and the bearing D, as described. Otherwise, should two lines or perforations be brought outside of the grasp of the said lever and bearing at the moment of tearing off, too sudden or vigorous a pull might detach two tickets instead of one, as desired. The ticket-roll within the case will unreel itself as the tickets are pulled out, and will be kept in its proper position by the combined effect of its own weight and the concave surfaces at the bottom of the case.

If preferred, the ticket-roll might be wound upon a spindle, and the same supported by and turned upon bearings suitably fixed on the sides of the case; but we prefer to place the roll as described, and shown in the drawings, as thereby all danger of the roll over-running itself, and thus entangling or disarranging the tickets, is avoided.

It is apparent that our said apparatus can be made use of not only to store, hold, and regulate the handling of marked checks or tickets, as described, but also in any other case where it is desired to regulate the handling of any material capable of being rolled and operated upon by said apparatus for any other kindred use.

Having thus described our said invention, what we claim as new, and desire to secure by Letters Patent, is the following, viz:

1. In a case, A, for storing and handling checks or tickets or similar materials, in combination with a fixed binding-rest or bearing, a pivoted lever, the inner end of which is pressed against such bearing by force applied to its outer end, thereby clutching between such bearing and end pressed against it a strip of paper or other material, and holding the same so as to admit of the detachment of a portion of said strip lying on outside of the part clutched without disturbing that portion of said strip lying on the other side and within said case, substantially as described.

2. In combination with a fixed binding-rest or bearing, a lever secured by and turning upon a pivot, axis, or bearings, such pivot, axis, or bearings being fixed in such relation to such binding-rest so that pressure upon one arm of said lever forces the other arm thereof against such binding-rest, whereby a strip of material passing between the binding-rest and the latter arm of said lever is caught and held between the same and such binding-rest, thereby enabling a portion of that part of said strip which extends between the part thereof so clutched in the direction of that arm of said lever on which direct pressure is exerted to be detached from the remainder of the strip without disturbing the latter, substantially as described.

3. In combination with a fixed bearing or binding-rest, D, springs I I, adjusted to press upon such bearing, so as to hold against it a strip of tickets or other material and allow the latter to be drawn in one direction and check the drawing of the same in the opposite direction, substantially as described.

4. In combination with an opening in a box or case to contain strips of tickets or other like articles, the two-armed lever F F', suitably pivoted with fixed bearing-rest D, substantially as and for the purposes set forth.

5. In combination with an opening in a box or case to contain strips of tickets or other like articles, a fixed bearing or binding-rest, D, with springs I I, substantially as and for the purposes set forth.

6. For use in storing and handling checks or tickets, the combination of a strip of consecutively-numbered tickets, C, with case A, having suitable opening, and lever F F', binding-rest or bearing D, and springs I I, substantially as and for the purposes set forth.

7. In a case, A, in combination with the binding-rest or bearing D, a lever, F F', provided with guide rod H and projections P P, substantially as and for the purposes described.

Dated May 4, 1885.

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