No. 840,702. PATENTED JAN. 8, 1907

C. L. MALONEY.

DISPLAYING AND VENDING DEVICE.

APPLICATION FILED MAY 23, 1904.

2 SHEETS—SHEET 1.

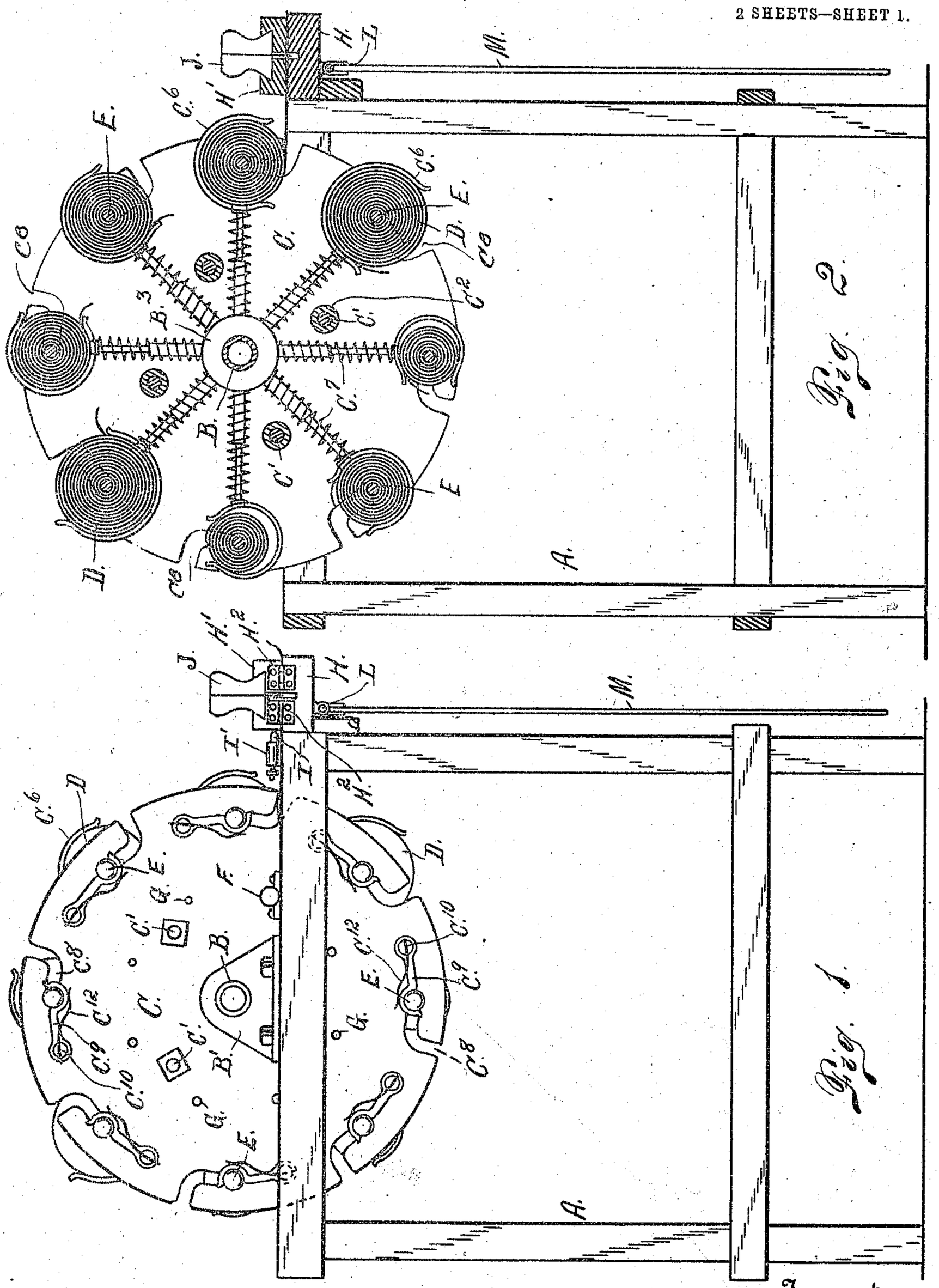

Fig. 2.

Fig. 1.

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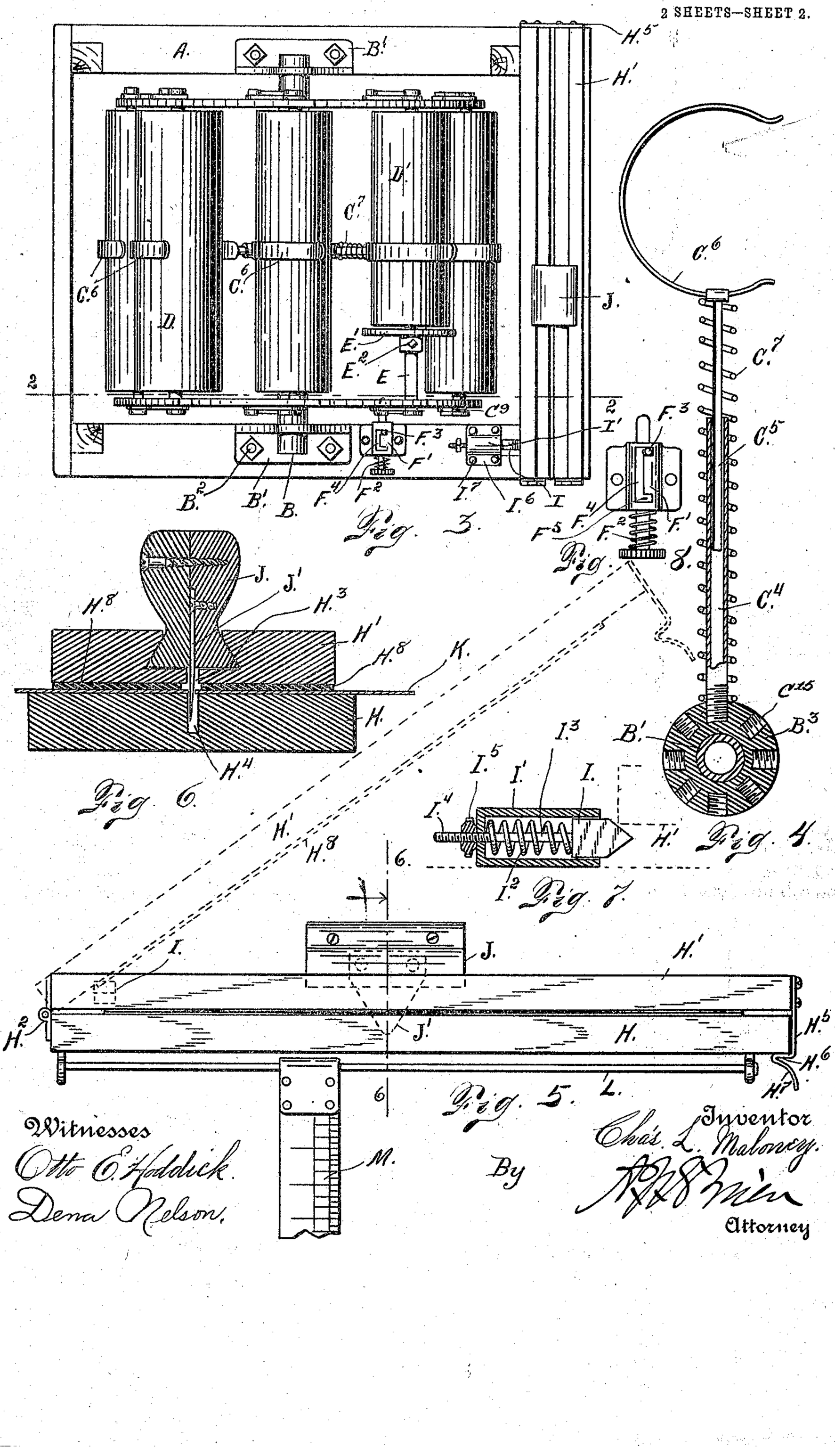

Fig. 3.

Fig. 8.

Fig. 6.

Fig. 4.

Fig. 7.

Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES L. MALONEY, OF DENVER, COLORADO.

DISPLAYING AND VENDING DEVICE.

No. 840,702. Specification of Letters Patent. Patented Jan. 8, 1907.

Application filed May 23, 1904. Serial No. 209,400.

To all whom it may concern:

Be it known that I, CHARLES L. MALONEY, a citizen of the United States of America, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Displaying and Vending Devices; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in devices for holding and displaying rolls of merchandise, as oil-cloth or any other material put up in rolls and adapted to be sold by unwinding from the roll and cutting it off according to the requirements of the customer.

My improved device consists, briefly speaking, of a suitable frame in which is mounted a reel or revoluble device having two heads suitably connected and trunnioned in the frame. Journaled in these heads is a number of roll-holding spindles detachably connected with the heads. The heads are mounted on a central axle provided with a hub having tubes radially disposed in which rods telescope and to whose outer extremities are attached spring-clasps adapted to engage the rolls mounted on the various spindles. Between the hub and each clasp and surrounding the tube and rod are coil-springs normally under tension, having a tendency to force the clasps and rods outwardly. This is to compensate for the reduction in the size of the roll during the unwinding operation, since as the roll unwinds and its size becomes less the spring forces the clasp outwardly for the purpose stated. Any desired number of roll-holding spindles may be employed. One or more of the spindles may have an individual adjustable head, whereby the spindle may be adapted to hold rolls of any length. Provision is also made for measuring and cutting off the material as it is unwound from the roll.

Having briefly outlined my improved construction as well as the function it is intended to perform, I will proceed to describe the same in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is an end elevation of my improved apparatus. Fig. 2 is a section taken on the line 2 2, Fig. 3. Fig. 3 is a top plan view of the apparatus. Fig. 4 is a detail view, on a larger scale, illustrating the hub of the device, showing one of the radial tubes and its connections. Fig. 5 is a detail view of the devices connected with the front of the machine for measuring and cutting the goods. Fig. 6 is a section taken on the line 6 6, Fig. 5, the parts being shown on a larger scale. Fig. 7 is a detail view of a spring-actuated pin for supporting the hinged part of the gage-clamp, the parts being shown on a larger scale than in the other views. Fig. 8 is a top plan view in detail of the device for locking the reel in the desired position, the parts being shown on a larger scale than in the other views.

The same reference characters indicate the same parts in all the views.

Let A designate a suitable frame in which is journaled a hollow axle B, whose extremities are journaled in brackets B′, mounted on top of the frame and secured thereto by bolts B^2. To the extremities of this hollow axle or shaft are secured disks C, forming heads which are further connected by rods C′, surrounded by spacing-tubes C^2, interposed between the two heads. On the central part of the hollow axle is mounted a hub B^3, having threaded sockets C^{15}, into which are screwed tubes C^4, radially disposed and in which telescope rods C^5, to the outer extremities of which are attached spring-clasps C^6. Between the clasp and the hub and surrounding the tube and telescoping rod is a coil-spring C^7. The spring-clasp C^6 is so constructed that when the roll D is first put in place and of normal size the clasp must be considerably open in order to put the roll in place, whereby the clasp is placed under tension and together with the compensating movement of the telescoping rod clasps the roll until it is completely unwound from the spindle E. Each spindle is journaled in the heads C, and in order to make them readily detachable they engage curved slots C^8 and when in position are locked in place by hooks C^9, pivoted on one head, as shown at C^{10}, and acted on by a spring C^{12}, the spring passing through the end of the pivot C^{10}, and thereby forming a key to hold the hook in place. It will be understood that there may be any desired number of rotary spindles E, according to the desired capacity of the apparatus. One or more of these spindles E may have an auxiliary head E′ adjustable on the spindle by means of a set-screw E^2, whereby the spindle may be adapted to hold rolls of vary-

ing length. In Fig. 3 of the drawings a short roll D′ is shown mounted on the spindle provided with a slidable head E′.

In order to hold the reel in any desired position of rotary adjustment, I employ a locking-pin F, mounted in the guide F′, secured to the top of the frame. Between the guide F′ and the head of the pin is located a coil-spring F^2, normally having a tendency to hold the pin in the released position. The pin is provided with a radial projection F^3, which enters a slot F^4, having two parts F^5 extending at right angles to the body of the slot. When it is desired to lock the reel in position, the pin is moved inwardly through the body of the slot F^4 and turned sufficiently to bring the projection F^3 into one of the angular parts of the slot. The inward movement of the pin causes it to enter a recess G of one of the heads of the reel or drum, and the rotary movement whereby the radial pin F^3 is thrown into one of the angular parts of the slot locks the pin in the holding position. When it is desired to release the reel, the action just described is reversed and the projection F^3 thrown into the outer angular part of the slot, whereby the pin is locked in the released position. There are a number of these openings G in one head, the number corresponding with the number of rotary spindles and so arranged that when the locking-pin engages one of these recesses the roll mounted on one of the spindles is in position to be unwound therefrom at the front of the machine.

Mounted on the front of the machine is a rigid bar H, to which is hinged at one extremity a bar H′, hinges H^2 being employed. The hinged bar has a slot H^3 extending therethrough and registering with a slot H^4, formed in the bar H, when the hinged bar is in the closed position. At the extremity remote from the hinges H^2 the hinge and bar is provided with a spring-keeper H^5, having an offset H^6, adapted to pass beneath the bar H when the hinged bar is moved downwardly. The keeper is provided with a curved extension H^7, making its engagement with the bar H automatic when the hinged bar has moved downwardly to the closed position. In order to hold the hinged bar open, the frame is provided with a spring-actuated pin I, mounted in a casing I′ and having a shoulder engaged by one extremity of a coil-spring I^2, the other extremity of the spring engaging the bottom of the casing. This pin is provided with a reduced stem I^3, passing through an opening in the bottom of the casing and having a protruding threaded part I^4, to which is applied a tension-nut I^5. The acting extremity of the pin is beveled on both sides, and when the hinged bar H′ is in the raised position, as shown by dotted lines in Fig. 5, the beveled extremity of the pin will pass beneath it and support it in such position. By virtue, however, of the beveled end of the pin, the bar H′ may be thrown down to the full-line position in Fig. 5 without pulling back the pin, since the latter will automatically recede as sufficient force is applied to the bar H′ to throw it to the closed position.

In order to facilitate the holding of the goods between the bars H and H′, the hinged bar is provided with a strip H^8, composed of rubber or other suitable yielding material, located on opposite sides of the slot H^3. The hinged bar H′ is provided with a central dovetail groove adapted to receive a handle J, carrying a cutter J′, which extends downwardly below the dovetail part of the handle or holder and passes through the slot H^3 and enters the slot H^4 when the bar H′ is in the closed position. This handle is readily slidable in the dovetail groove of the bar H′, whereby the strip of material K may be quickly severed after the desired length of the strip has been drawn from the roll. The casing I′ is provided with flanges I^6, through which are passed fastening devices I^7 for holding the casing in place.

To the lower side of the bar H is attached a rod L, upon which is movably mounted a graduated measuring device M. This device is adapted to occupy a vertical position when not in use. When it is desired to use it, it is raised to a horizontal position, whereby the material may be measured as it is drawn from one of the spindles. As soon, however, as the measuring device is released it drops down out of the way.

From the foregoing description it is believed that the use and operation of my improved device will be readily understood. Assuming that rolls D and D′ are mounted on the device as shown in Figs. 1, 2, and 3, the reel is turned until the roll from which it is desired to remove a portion of the material is brought into the proper position. The pin F is then adjusted, as heretofore described, to engage one of the openings G of the reel, whereby the latter is held in position for the desired length of time. The material is then drawn forwardly over the bar H, it being assumed that the bar H′ is raised to the position shown by dotted lines in Fig. 5. By employing the measuring device M the desired length of material is readily ascertained, after which the bar H′ is thrown downwardly to the full-line position in Fig. 5 and the cutter J J′ employed to sever the piece which has been drawn from the roll. It is evident that as the size of the roll diminishes the spring C^7 will force the clasp C^6 outwardly sufficiently to compensate for the reduction in the size of the roll.

Having thus described my invention, what I claim is—

1. In a device of the class described, the combination of a reel suitably mounted, a plurality of spindles revolubly mounted on

the reel, the latter having an axle, two telescoping parts one of which is rigidly connected with the axle and to the other of which is applied a spring-clasp, a coil-spring surrounding the telescoping parts and having a tendency to force the spring-clasp outwardly for the purpose set forth.

2. In an apparatus of the class described, the combination of a shaft or axle revolubly mounted, separated heads made fast to the axle, roll-holding spindles journaled in the heads, a number of radial tubes connected with the axle, rods telescoping in the tubes, the outer extremities of the rods being provided with spring-clasps and coil-springs surrounding the telescoping parts and having a tendency to force the clasps outwardly.

3. The combination with a suitable support, of an axle journaled therein, heads mounted on the axle, roll-holding spindles journaled in the heads, the axle having a centrally-located hub provided with radial tubes, rods telescoping in the tubes, springs surrounding the telescoping parts, clasps attached to the outer extremities of the rods and acted on by the springs, and means for locking the shaft in position to allow the material to be drawn from any roll, substantially as described.

4. The combination with a suitable support, of a reel provided with an axle revolubly mounted thereon, roll-holding spindles journaled in the reel, radially-disposed tubes connected with the reel-axle, rods telescoping in the tubes and provided with clasps at their outer extremities, coil-springs surrounding the telescoping parts and acting on the clasps, and a locking-pin mounted on the support and adapted to engage the reel whereby the latter may be held in any desired position of adjustment.

5. The combination with a suitable support, of a reel revolubly mounted thereon and provided with a shaft, a plurality of roll-holding spindles journaled in the reel, telescoping parts connected with the shaft, the outer telescoping members carrying clasps acting on the rolls of the spindles.

6. In an apparatus of the class described, the combination of a reel provided with an axle, a suitable support in which the axle is journaled, the reel having separated heads fast on the axle, slots formed in the said heads and open on the edges thereof, roll-holding spindles whose extremities engage the said slots, spring-actuated hooks mounted on the heads and engaging the spindle extremities to hold the latter in place, radial telescoping parts connected with the axle, one of said parts having a clasp at its outer extremity, and a spring surrounding the telescoping parts and acting on the clasp to force the latter outwardly, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES L. MALONEY.

Witnesses:

A. J. O'BRIEN,

DENA NELSON.