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F. E. MYERS.

STORAGE, MEASURING, AND FOLDING CABINET FOR ROLL GOODS.

(Application filed Jan. 31, 1901.)

(No Model.)

Fig. 1.

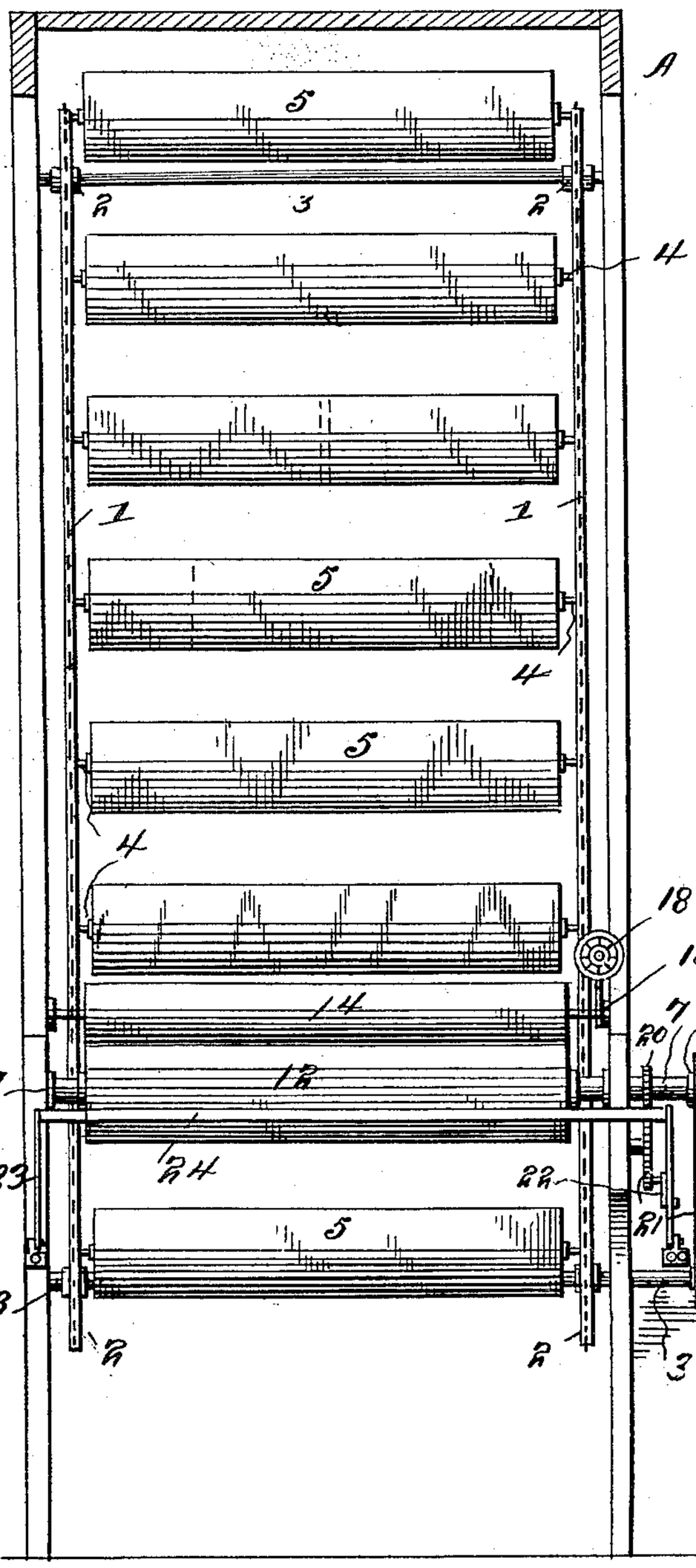


Fig. 3.

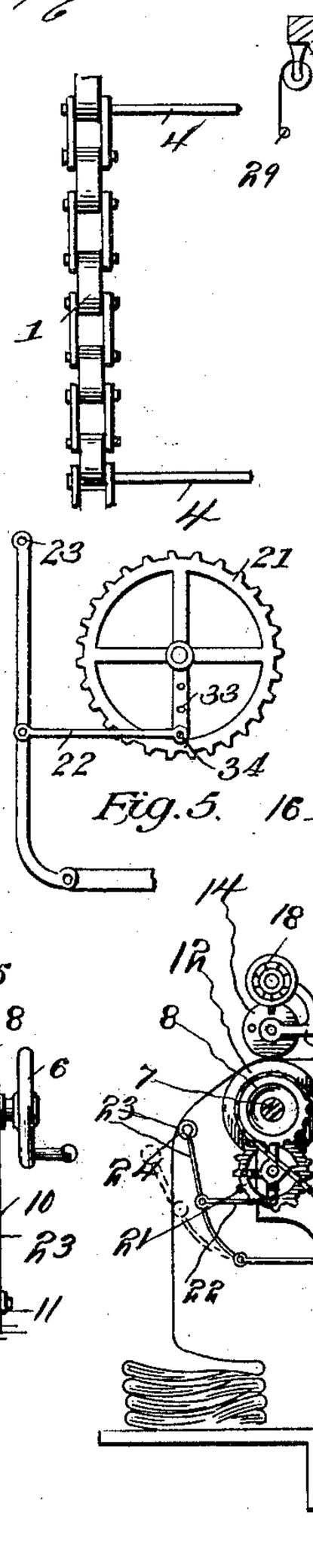


Fig. 5.

Fig. 2.

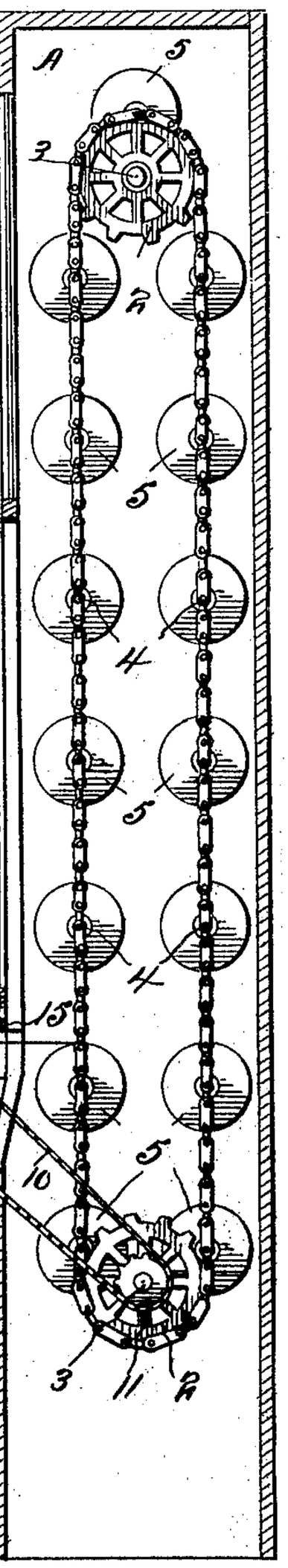
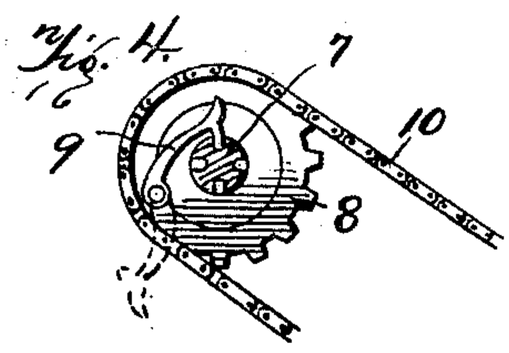


Fig. 4.



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FRANKLIN E. MYERS, OF SEVERY, KANSAS.

STORAGE, MEASURING, AND FOLDING CABINET FOR ROLL GOODS.

SPECIFICATION forming part of Letters Patent No. 686,828, dated November 19, 1901.

Application filed January 31, 1901. Serial No. 45,456. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN E. MYERS, residing at Severy, in the county of Greenwood and State of Kansas, have invented certain new and useful Improvements in Storage, Measuring, and Folding Cabinets for Roll Goods, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to machines or apparatus for holding, delivering, and folding rolls of goods or fabrics and has a measuring and computing attachment to indicate the amount of goods delivered.

The object of the invention is to provide a containing-cabinet in which goods in rolls may be stored and from which dust may be excluded and light, if desirable, the rolls being so supported that any roll may be quickly moved to the delivery-orifice, the goods withdrawn therefrom, measured and folded, and the amount of such delivery recorded, if desirable.

Figure 1 is a front elevation and partial section of a cabinet, showing the general arrangement of delivery and folding apparatus. Fig. 2 is a diagram showing the parts in section and parts in elevation. Fig. 3 is a detail of carrier or sprocket chain. Fig. 4 is a detail of connection from elevator-driving wheel to delivery-roll shaft. Fig. 5 is a side elevation showing folder and adjustable connection to driving-gear.

The dry goods are stored in rolls in a cabinet, (indicated at A.) This cabinet may be of any suitable form, but preferably extends from floor to ceiling and has a glass or glazed front. Inside the cabinet are two sprocket-chains 1 1, passing around sprocket-wheels 2 2 2 2, which sprocket-wheels are carried on shafts 3 3, so as to turn therewith. Any of the links of the chains 1 1 may serve as bearings for rollers or shafts 4 4. These shafts may serve as rivets to connect the links of the sprocket-chain, or they may be supported in separate bearings, as is common in many sprocket-conveyers. The rolls 4 4 extend from one chain to the other after the manner of rungs in a ladder. The rolls 5 of goods are wound on rollers 4. This may be done by rewinding piece goods, or the rolls of goods may be wound at the factory ready to receive the shafts or axles 4, as is common in the manufacture of paper in rolls for large printing-presses.

The sprocket conveyer or elevator can be operated by turning a hand-wheel 6 on shaft 7, on which shaft there is a belt-pulley or sprocket-wheel 8, which may be brought into clutch engagement with the shaft 7 or be left free to turn on the shaft. In Fig. 4 a pawl 9 is shown on wheel 8, which pawl may be turned into any one of the notches in shaft 7, so that the shaft 7 and wheel 8 shall move together. A belt or sprocket-chain 10 runs over wheel 8, and so to wheel 11 on one of the shafts 3. When hand-wheel 6 is turned, driving-shaft 7, if the wheel 8 be in clutch with such shaft the belt or chain 10 will drive wheel 11 and shaft 3, and so actuate the sprocket-chains 1 1 to raise or lower all the rolls 5 until the desired one shall come opposite the delivery-opening in the cabinet.

On shaft 7 and extending parallel with the front of the cabinet there is a delivery-roll 12. This roll is supported in suitable bearings, and its face is covered with felt, rubber, or other material which will serve to clamp closely to goods passed over the face of the roller. Above the roller, which may be called the "actuating delivery-roll" 12, there is a roller 14, which is supported on brackets 15, projecting from the door or sash 16, glazed, as shown, which sash forms part of the front of the cabinet. By lifting sash 16 the roll 14 is raised, and the hand of the operator may be passed in to draw out the end of the goods from that roll 5 which is next the opening. The end of the goods being placed on roller 12, the sash 16 is drawn down and the goods will be nipped between the rolls 12 and 14. The belt-wheel 8 should then be disconnected from shaft 7. Roll 14 may be called the "clamping delivery-roll."

The roller 12 will preferably be of such size that its multiple will be a sales unit. Thus if the roll 12 be a little less than six inches in diameter one rotation thereof will draw a half-yard of the fabric from the roll 5 on the elevator.

The handle on hand-wheel 6 gives approximate indication of the length of fabric delivered by counting the rotations. Exact measurement may, however, be had by attaching

a counting-register 18 to the roller 14. As the roller 14 does not revolve except when lowered down to have engagement with roll 12 or the goods thereon, and as the register can readily be adapted to indicate the movement of the goods when the sash is down, it is apparent that the register 18 may be made to indicate the exact amount of goods delivered.

Counting and measuring and counting, measuring, and computing registers are well known. I have devised a measuring-register by which price computations may also be made; but as the same is a separate invention, and as measuring and computing registers known in the art are applicable to the purposes of this invention, I do not limit my claims to the combination or application of any particular register therewith.

On the shaft 7 there is a gear-wheel 20, which meshes with a gear 21, supported on a suitable bearing. Gear 21 has a movable pitman 22, which may be adjusted nearer to or farther from the center of the wheel 21, the pitman acting in usual manner by crank-pin or other connection. A folder-rod 23 is pivoted to a suitable support, as a bracket, below the roller 12, and pitman 22 is connected to this folder-rod. A similar rod 23 is placed at the opposite end of the cabinet; but usually one pitman connection is sufficient. The wheel 21 has as many spokes as may be needful or desirable. One of these spokes has a plurality of perforations 33. A screw or pin 34, passing through a hole in the end of the pitman, can be adjusted into any one of these holes 33, so as to be nearer to or farther from the center of the wheel, and thus cause a longer or shorter throw of the pitman, and consequently a variation of the swing of the vibrating folder. The rods 23 are connected by a bar 24, so that both rods 23 and bar 24 swing out together. The rotation of shaft 7 revolves the roller 12 and causes the folder-bar 24 to swing back and forth by means of the gear and connection described. When a fabric is fed out from the roller 12, the swinging of the folder-bar will cause the fabric to fall in folds on a suitable table, counter, or support below roll 12, as indicated in Fig. 2. By changing the position of pitman 22 the folder-bar may be made to swing so as to lay down short or long folds.

It is obvious that the goods on rolls 5 may be of any widths less than the length of shafts 4. More than one width of fabric may be borne on one roll. As the rolls diminish in size unequally a brake may sometimes be needed to prevent the rotation of the sprocket-elevator by gravity; but usually friction will suffice.

A curtain 29 may be applied to the front of the cabinet to exclude light.

As all the goods in the piece can be successively brought to the delivery-orifice, only one opening in the cabinet is necessary, and this can be substantially closed when the store is closed.

It is obvious that any desired length and width of cabinet may be used. The illustration I have given shows the general principles; but changes are within the province of almost any skilled mechanic.

What I claim is—

1. In a storage-cabinet for roll goods, the combination of a sprocket-chain elevator for the rolls, means for actuating the elevator to present any roll near the delivery-orifice, a delivery-roll in proximity to said orifice, and a clamping-roll supported on a movable part of the cabinet, so as to be lifted when the cabinet is opened and closed down to clamping position by the closing of said movable part, substantially as described.

2. In a storage-cabinet for roll goods, an endless sprocket-chain elevator within the cabinet, rolls extending from chain to chain, for holding roll goods, an opening in the cabinet for the passage of the fabric, a delivery-roll near said opening and a handle for rotating said delivery-roll, and a wheel on the delivery-roll shaft capable of coupling with or uncoupling from said shaft, and a belt connecting said wheel to the sprocket-chain elevator, whereby the delivery-roll and elevator may both be actuated by the same handle.

3. In a cabinet as described, the endless-chain elevator within the cabinet, an actuating delivery-roll outside the cabinet, a shaft and a hand-wheel for actuating the roll, a sprocket-wheel on the shaft of said roll, a sprocket extending therefrom to the elevator, and a clutch for detaching or attaching said sprocket.

4. In a storage and display cabinet, the combination of the casing having a side opening, an endless-chain elevator within the casing carrying rollers on which goods may be wound, an operating-shaft outside the casing and having detachable driving connection to the endless-chain elevator, clamping-rolls outside the casing in operative relation to the driving-shaft, and means for adjusting the clamping-rolls so as to grasp and deliver goods from the rolls in the cabinet.

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

FRANKLIN E. MYERS.

Witnesses:
H. T. KANATZER,
W. B. WHITE.