J. D. CAPERS.

DISPLAY RACK.

APPLICATION FILED JUNE 10, 1911.

1,009,827.

Patented Nov. 28, 1911.

3 SHEETS—SHEET 1.

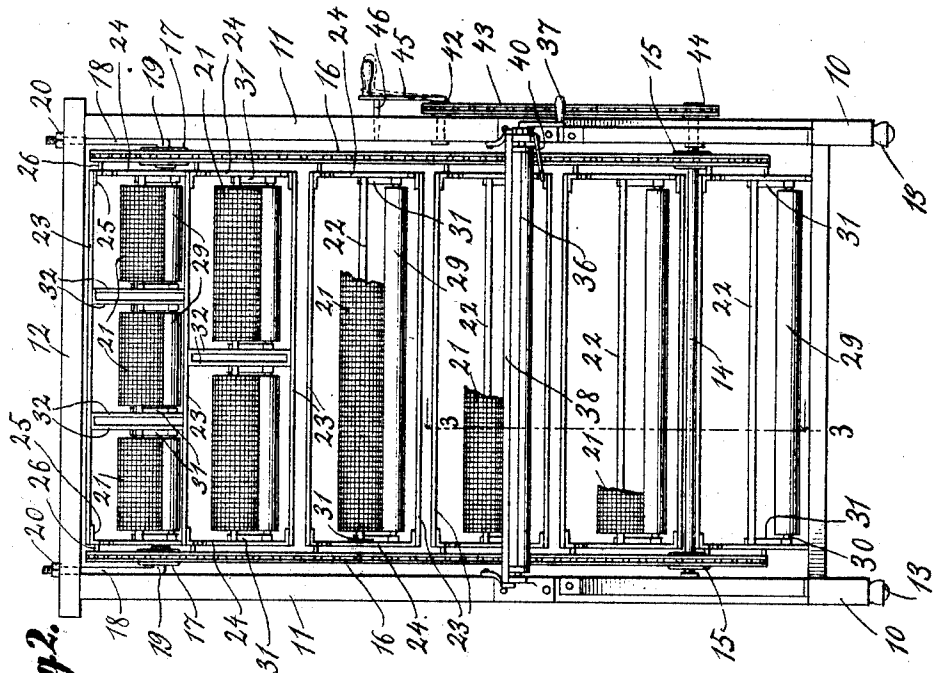

Fig. 2.

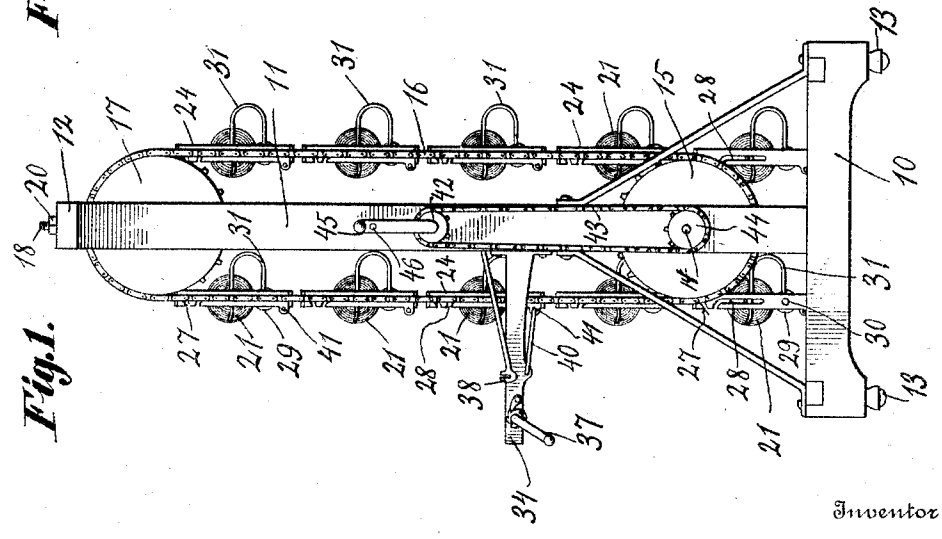

Fig. 1.

Witnesses

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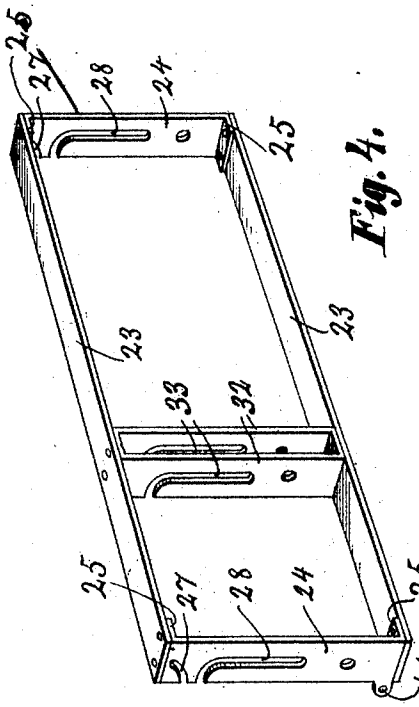


Fig. 4.

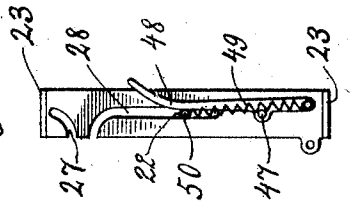


Fig. 5.

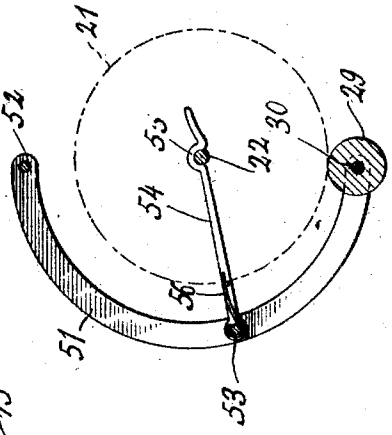


Fig. 6.

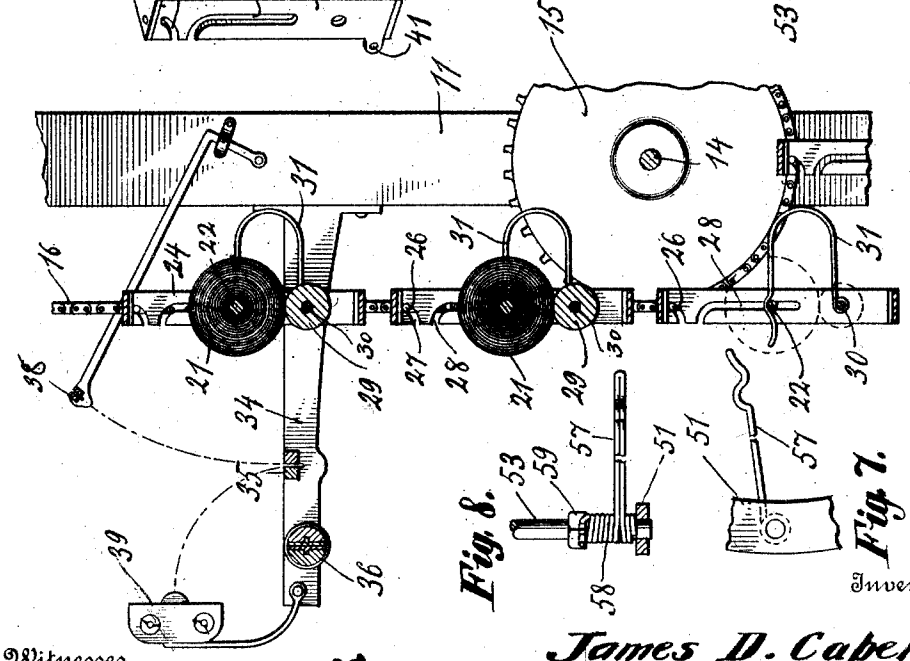


Fig. 3.




Fig. 8.




Fig. 7.

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3 SHEETS—SHEET 3.

Fig. 9.

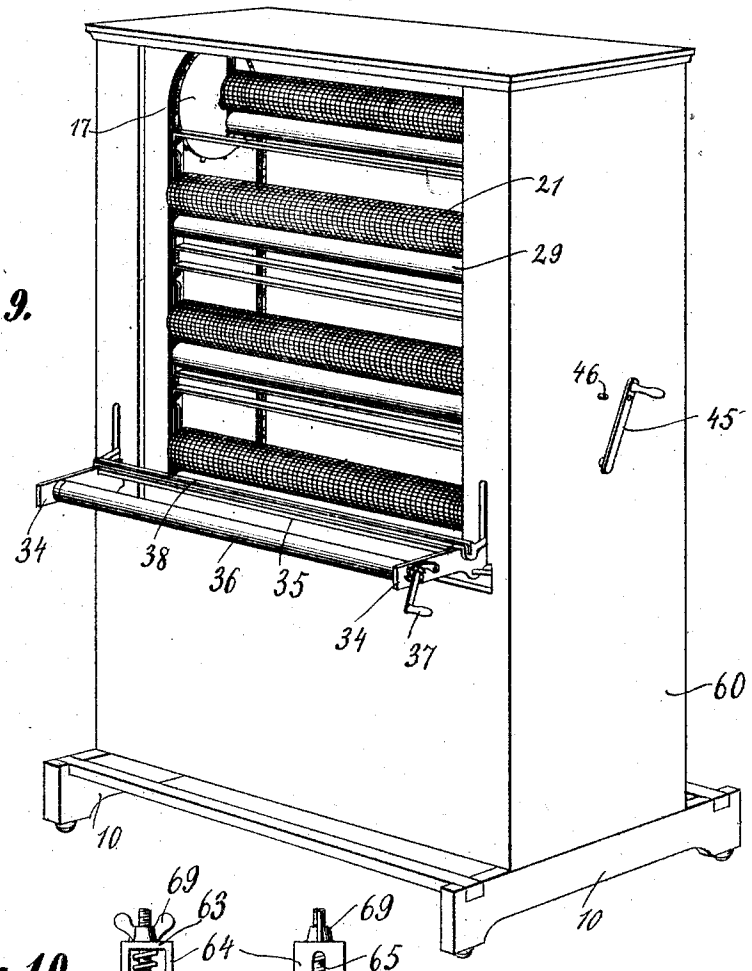



Fig. 10.

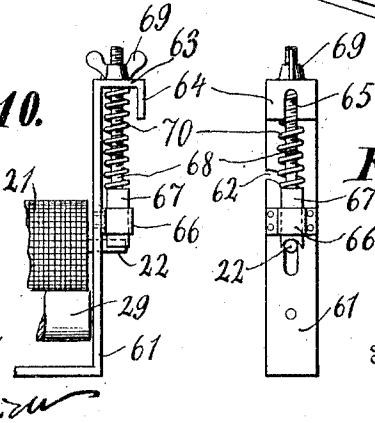
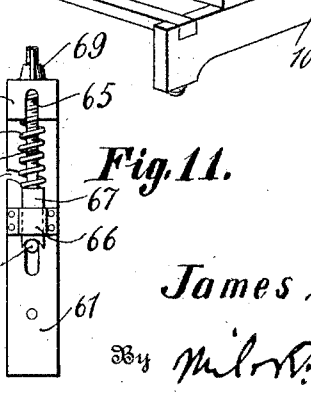



Fig. 11.

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# UNITED STATES PATENT OFFICE.

JAMES D. CAPERS, OF SHAW, MISSISSIPPI.

## DISPLAY-RACK.

1,009,827. Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed June 10, 1911. Serial No. 632,361.

*To all whom it may concern:*

Be it known that I, JAMES D. CAPERS, a citizen of the United States, residing at Shaw, in the county of Bolivar and State of Mississippi, have invented certain new and useful Improvements in Display-Racks, of which the following is a specification.

The apparatus which is the subject of the present invention is designed more particularly for holding and displaying rolls of wire screen fabric; said fabric being sold by unwinding it from the rolls and cutting off the desired quantity.

It is the object of the invention to provide a novel and improved holder of the kind stated which permits the display of a large number of rolls of different lengths, the parts being arranged so that the desired roll can be quickly and easily brought into position for unwinding and cutting off the material.

The invention also has for its object to provide novel and improved supporting means for the rolls which enable the latter to be readily mounted in display position, or removed from the device.

With these and other objects in view as will appear when the nature of the invention is better understood, the same consists in a novel construction and arrangement of parts to be hereinafter described and claimed.

In the accompanying drawing forming a part of this specification, Figure 1 is a side elevation of the apparatus. Fig. 2 is a front elevation thereof. Fig. 3 is an enlarged vertical section on the line 3—3 of Fig. 2. Fig. 4 is a perspective view of one of the roll holding frames. Fig. 5 is a cross section of a modified form of roll holder. Fig. 6 is an end view of another modified form of roll holder. Fig. 7 is a side elevation of another modification. Fig. 8 is a plan view of the parts shown in Fig. 7. Fig. 9 is a perspective view showing the apparatus provided with an inclosure. Figs. 10 and 11 show another modified form of roll holder.

The frame of the apparatus comprises a suitable base 10 from which rise two spaced standards 11 suitably braced at the bottom and connected at the top by a cross bar 12. The base is mounted on casters 13 so that the apparatus may be readily moved about in the store.

The standards 11 are provided near their lower ends with bearings in which is journaled a transverse shaft 14 provided near its ends with sprocket wheels 15 over which pass endless chains 16, which latter also pass over sprocket wheels 17 carried in supports mounted on the cross bar 12. A pair of spaced vertically traveling sprocket chains 16 is thus provided between which are hung the roll holders to be presently described. The supports for the sprocket wheels 17 are stems 18 which pass loosely through the cross bar 12 vertically and have laterally extending axles 19 on which said sprocket wheels are mounted. The upper ends of the stems rise from the top of the cross bar and are screw-threaded to receive a nut 20 which screws against the cross bar and serves to hold the stems in place. This connection permits vertical adjustment of the stems to tighten the chains 16.

The rolls 21 of screen fabric or other material are carried by shafts 22 supported in frames extending transversely between and carried by the chains 16. Each of these frames comprises top and bottom cross bars 23, and end pieces 24, the latter having inturned flanges 25 at their upper and lower ends to which the cross bars are riveted or otherwise secured. The chains are provided at intervals with special links, the latter having outstandnig pins 26 on one side, on which pins the herein described frames are hung, the end pieces 24, near the top thereof, having notches 27 in one of their edges to receive said pins. The end pieces also have vertical slots 28 which open at their upper ends through the notched edge, said slots being designed to support the shaft 22, the latter extending between the end pieces and seating loosely and removably in the slots. Below the roll 21 is mounted a roller 29 which is carried by a shaft 30 supported by the end pieces 24. The roll 21 is held pressed against the roller 29 by means of a spring 31 fastened at one end to the shaft 30, and pressing with its free end on the shaft 22. This arrangement prevents the material from being accidentally unwound. The slots 28 enable the rolls to be readily put in place or removed.

In order to provide for screen fabrics of different widths, certain of the herein described roll holders are provided with intermediate shaft supporting members, said members comprising spaced plates 32 con-

nected across at the top and riveted or otherwise secured to the cross bars 23. The plates 32 have slots 33 similar to the slots 28. This structure enables two rolls to be mounted in one holder. The shaft 22 of one of the rolls will be supported by one of the end pieces 24 and plates 32, and the shaft of the other roll will be supported by the other end piece and plate, said shafts being mounted in the slots of said parts as already described. The plates 32 also have apertures to receive the shaft 30 of the rollers 29, one of such rollers being provided for each roll 21. The number of intermediate shaft supporting members may be increased according to the number of rolls to be supported by one holder. Fig. 2 of the drawing shows one of the holders provided with one intermediate supporting member, thus adapting it for two rolls, and another holder is shown with two intermediate members, thus adapting it for three rolls.

The standards 11 carry brackets 34 which support a cutting board 35, said board being longitudinally slotted. In front of the cutting board the brackets support a feed roller 36 to which the end of the fabric to be sold is attached and unwound from its roll 21 by winding it on the feed roller, the latter being split longitudinally so that the fabric may be clamped between the two sections of the roller, the arrangement being the same as that disclosed in my application No. 573,877, filed July 26, 1910. A crank handle 37 is provided for operating the roller 36, and a pawl-and-ratchet mechanism for preventing the roller from slipping back. To the standards is also pivoted a knife guide 38 which is adapted to be swung downwardly to extend in alinement with the slot of the cutting board.

In operation, to cut off the desired quantity of fabric, the end thereof is connected to the feed roller 36, and wound thereon. After the desired quantity has been unwound, the guide 38 is swung downwardly and the knife or other cutting tool is drawn along the guide to sever the fabric. If desired, a measuring machine 39 may be provided, the measuring roller of said machine being located above the cutting board 35 so that the fabric passes between said roller and the cutting board and actuates the former. The bracket 34 carries a hook 40 which is engageable with an aperture 41 in an ear on one of the end pieces 24 of the roll holders for the purpose of holding the selected roll steady while the material is being unwound therefrom.

The following means are provided for bringing the selected roll of fabric into measuring and cutting position: One of the standards 11 supports a sprocket wheel 42 which is connected by a chain 43 to a sprocket wheel 44 on the shaft 14. The sprocket wheel 42 is provided with a crank handle 45 which, upon being turned, causes the chains 16 to travel around, thereby bringing the desired roll in position. The crank handle is made of spring steel and has an aperture into which is adapted to pass a pin 46 extending from the standard, to lock the crank handle, and thus prevent movement of the chain. Before the crank handle can be operated, it is necessary to pull the same outwardly to disengage the pin, and upon releasing the crank handle it may be sprung back over the pin.

Fig. 5 shows a modified form of roll holder, a different arrangement of springs for holding the roll 21 against the roller 29, being provided. Below the slot 28 is pivoted, intermediate its ends, on a pin 47, a lever 48 to which is connected one end of a coiled spring 49, the other end of said spring being connected to a pin 50 carried by the shaft 22. The pin 47 also serves as the axle of the roller 29. The free end of the lever 48 is adapted to engage the pin 50, and upon swinging this end of the lever downwardly, the spring is relaxed and it may then be disconnected to permit removal of the roll 21. After the roll is in position, the lever is swung upwardly against the pin 50, whereupon the spring is put under tension, and the roll 21 is held pressed downwardly against the roller 29. It will be understood, of course, that both ends of the roll holder are provided with the herein described arrangement of spring.

Fig. 6 shows another modified form of roll holder. This holder comprises semicircular end pieces 51 connected at the top, and intermediate their ends, by rods 52 and 53, respectively. The top rod 52 is connected to the chain 16. The holder carries a roller 29, the shaft 30 of which is mounted at the lower end of the end pieces. The roll 21 rests on the roller 29, and is held pressed thereagainst by spring-actuated arms 54 having hook-shaped extremities 55 which engage over the shaft 22. The arms are pivotally connected to the rod 53, and springs 56 are fastened at one of their ends to said rod, and press at their other ends against the arms, thus holding the same in operative position.

Another modification is shown in Figs. 7 and 8. In this structure the arm 54 is formed of a doubled piece of wire as indicated at 57, and the wire is coiled around the rod 53 as indicated at 58 and secured thereto by a nut 59. A spring arm is thus formed which engages the shaft 22 in the same manner as the arm 54.

Referring to Fig. 9 of the drawings, there is shown a cabinet 60 which incloses the apparatus. The cabinet is open in front above the cutting device so as to expose the rolls 21, and also permit the withdrawal of the

screening which is to be cut off. The cabinet may be made plain or ornamental as the fancy dictates.

The modified form of roll holder shown in Figs. 10 and 11 has end pieces 61 carrying the roller 29 and having slots 62 to receive the shaft 22. The top of the end piece has a horizontally extending portion 63 terminating in a downward bend 64 in which is a slot 65 similar to the slot 26, and for the same purpose as the latter. On the outer face of the end piece is mounted a guide 66 in which is slidably mounted a plunger 67 carried by a stem 68 which passes loosely through an opening in the part 63, said stem being threaded to receive a wing nut 69 adapted to be screwed against the part 63. The bottom of the plunger is made concave and engages the projecting end of the shaft 22. Around the stem 64, between the plunger 67 and the part 63, is coiled a spring 70 which tends to push the plunger downwardly, and as the latter is in engagement with the shaft 22, the roll 21 is held spring-pressed against the plunger 29.

I claim:

1. The combination of a frame, a pair of spaced endless chains mounted in said frame, and roll holders extending between and carried by said chains, said roll holders comprising end pieces and cross bars connecting the same, said end pieces being slotted, a shaft supported in the slots, levers pivoted intermediate their ends to the end pieces, springs connected at one of their ends to one end of the levers and at their other ends to the aforesaid shaft, and pins extending from the shaft into the path of the other end of the levers.

2. The combination of a frame, a pair of spaced endless chains mounted in said frame, and roll holders extending between and carried by said chains, said roll holders comprising end pieces and cross bars connecting the same, and shafts carried by the end pieces, one of the end pieces having an outstanding perforated ear, and a holding member carried by the frame and engageable with the perforation to lock the chains.

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

JAMES D. CAPERS.

Witnesses:
A. E. GRAHAM,
F. A. GRAHAM.