

April 18, 1939.

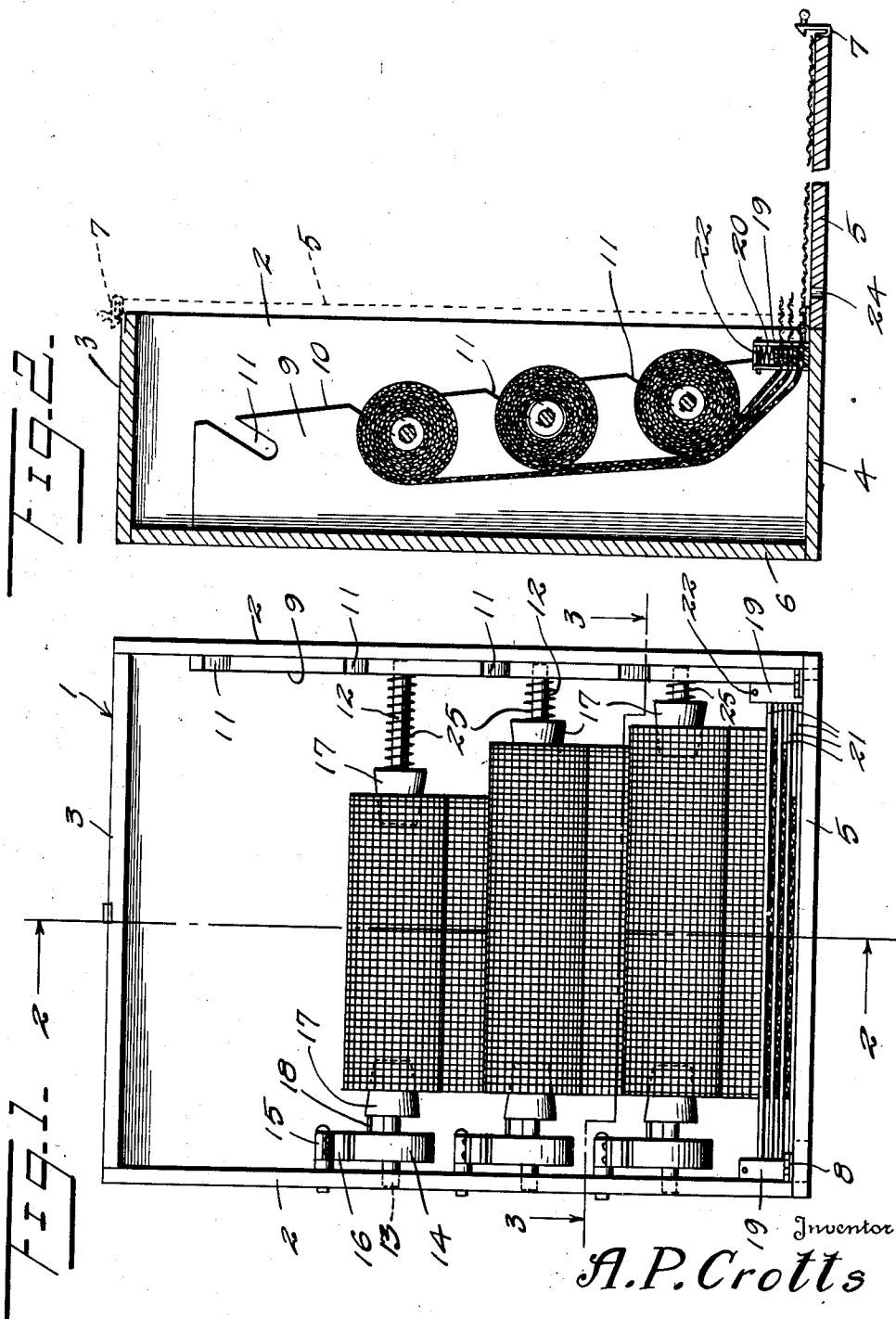
A. P. CROTTTS

2,154,440

ROLL MATERIAL DISPENSER

Filed Dec. 31, 1937

2 Sheets-Sheet 1



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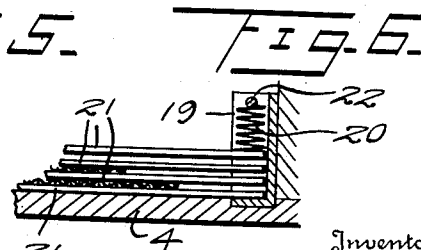
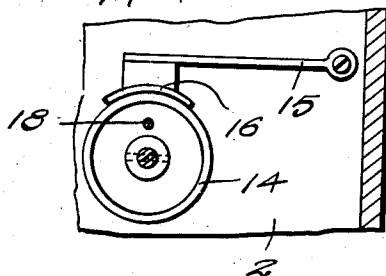
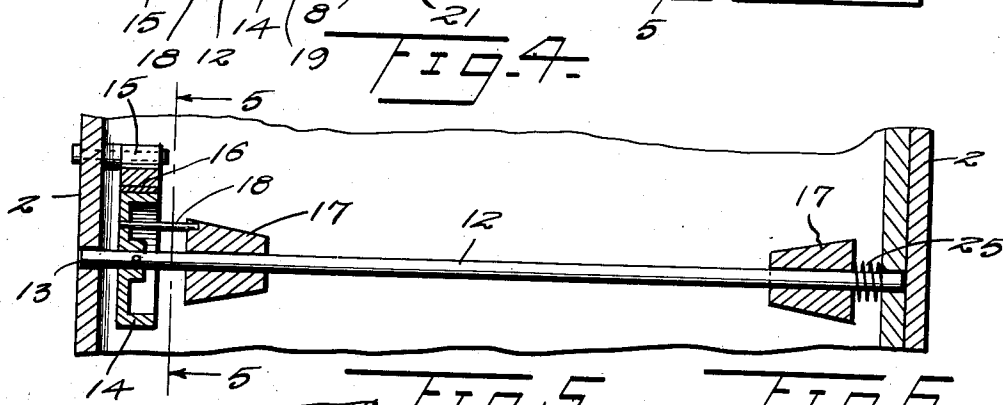
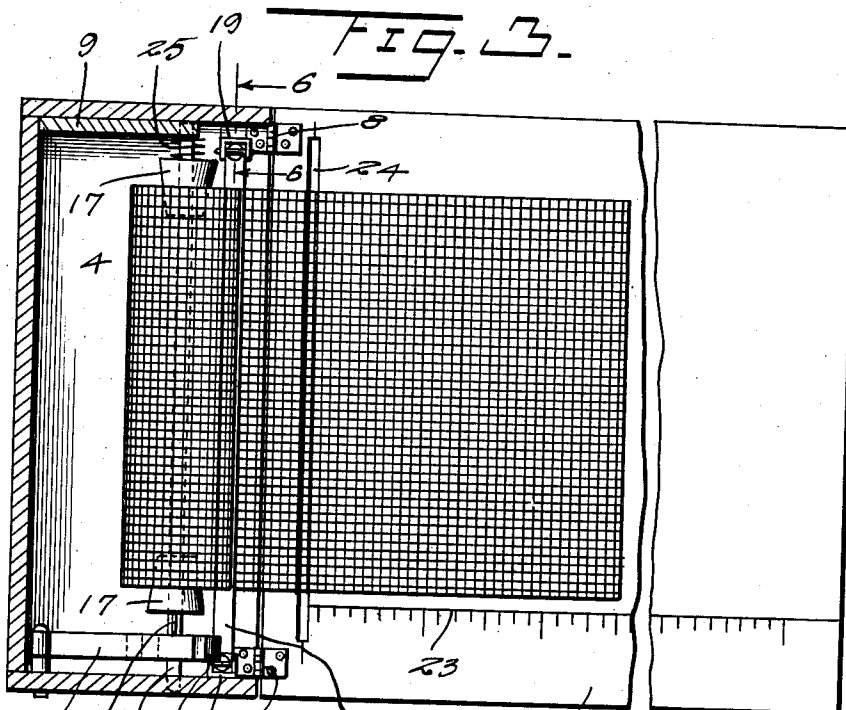
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ROLL MATERIAL DISPENSER

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2 Sheets-Sheet 2



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2,154,440

ROLL MATERIAL DISPENSER

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Application December 31, 1937, Serial No. 182,907

2 Claims. (Cl. 242—55.3)

This invention relates to store fixtures of a character to facilitate the dispensing of roll material and relates particularly to such a fixture which is designed primarily for handling rolls of screen wire.

The present invention has for its primary object to provide a structure in which a number of rolls of screen wire or similar material may be mounted and in which means is provided for facilitating the withdrawal of a predetermined amount of any one of the rolls without the annoyance of having the material of the roll overrun itself so as to become loosened and without losing the cut end of the wire after the desired length of material has been removed.

Another object of the invention is to provide in a roll material dispensing structure, a novel means of securing the free ends of the rolls so that any one thereof may be taken hold of and drawn out to a desired extent and the remaining material securely held after the desired piece has been cut away so that the free end will again be easily obtainable when more material is to be removed.

Another object of the invention is to provide in a roll material dispensing cabinet wherein the front closing wall of the cabinet may be utilized as a cutting board and as a means of measuring off a desired length of material.

A still further object is to provide in a structure of the character set forth a novel means of frictionally holding each roll whereby the material of the roll may be easily drawn off but the roll will not spin and thus loosen up or unwind the material more than is necessary.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a view in front elevation of the structure embodying the present invention showing the front wall in open position.

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1.

Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 1.

Fig. 4 is a sectional view through a material roll

supporting shaft and other parts of the structure immediately associated therewith.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 3.

Referring now more particularly to the drawings, the numeral 1 generally designates a cabinet which has the vertical side walls 2, the top and bottom walls 3 and 4 respectively, and the front and rear walls 5 and 6 respectively. The front wall 5 constitutes a door or closure for the cabinet and may be provided with any suitable means, such as a spring latch 7 carried at its top edge, for holding it in the closed position illustrated in dotted outline in Fig. 2. Hinge means 8 couples the lower edge of the wall 5 with the front edge of the bottom wall 4 of the cabinet, and these hinges are of such a character as to permit the front wall to be moved to a position in the same plane as the bottom wall 4 shown in Fig. 2, so that a portion of the wire material may be drawn out over the wall 5 and cut thereon, as hereinafter described.

Secured against the inner face of one side wall 2, as shown in Fig. 2, is a supporting or bracket plate 9 which has an upwardly and rearwardly inclined front edge 10 which is set back from the front edge of the adjacent side wall and is provided with the downwardly and inwardly extending pockets 11, in each of which an end of a roll carrying shaft 12 is adapted to position. Directly opposite the lower end of each pocket 11 the other side wall is provided with a shaft end receiving opening 13, and thus it will be seen that when the shafts 12 are placed in position in the case or cabinet between the walls 2, each will have one end inserted first into an opening 13 and then have its other end swung in to engage in the pocket 11 in which it will be supported, as shown in Fig. 1.

Each shaft 12 has secured thereto, adjacent the wall in which the openings 13 are formed, a friction or brake drum 14, and secured to the adjacent wall in a plane above the adjacent drum, is a spring arm 15 which carries upon its free end a friction or brake shoe 16 which bears against the periphery of the adjacent drum. Each spring arm 15 is normally under tension when the shoe 16 engages a drum so that constant restraint will be placed upon the adjacent shaft 12 to prevent its free rotation.

Each shaft carries the pair of opposed cones 17 and the cone nearest the brake drum 14 is coupled thereto in any suitable manner, as by

the pin 18, to prevent its rotation independently of the drum and shaft. The other cone is adapted to have sliding movement on the shaft so that the two cones can be separated as necessary, to take care of rolls of different lengths.

Upon the bottom wall 4 and at each side of the cabinet, there is secured a casing 19 of suitable character to house a spring 20 and the ends of a series of flat strips 21 which extend transversely of the front of the cabinet in the manner illustrated in Fig. 1. These flat strips normally lie one upon the other and are held down firmly by the springs 20 in the casings 19 in which the ends of the strips are loosely engaged. Any suitable means may be provided for maintaining the springs under tension, and the means here shown consists of a pin 22 which is passed through the top of each casing across the adjacent spring to hold the latter under compression. The casings 19 have their opposed faces open throughout the length thereof so that the inserted ends of the strips 21 may be raised to the full extent permitted by the springs.

The strips 21 constitute a friction gripping means for the free end of each roll of material which may be mounted in the casing, and due to the rearward inclination of the vertically arranged series of pockets and the corresponding openings 13, it will be apparent that the free end of each roll in the cabinet may be conveniently brought down behind the underlying rolls and then passed forwardly between a pair of the friction gripping strips 21. By this arrangement, when a portion of the material in one of the rolls is to be removed, the secured free end of the roll may be drawn out between the strips and across the top surface of the front wall 5 which constitutes a combined cutting and measuring board. For convenience in measuring off a length of material, the board may be provided along one side edge with a scale, as indicated at 23, representing inches, and adjacent to and paralleling the rear or inner edge of the wall 5 there is formed a slot 24 to receive the point of a knife to be drawn transversely of the material. The scale 23 starts at the forward side of the slot 24 and thus by drawing out a piece of material to the desired length and holding the knife blade against the forward side of the slot when drawing the cloth across the material, a piece of the desired length may be readily cut off.

In order that the sliding one of the cones 17 upon each shaft may be firmly held in position in the end of an adjacent roll of material, there is provided a coiled spring 25 which bears at one end against the pocketed plate 9 and has its other end bearing directly against the adjacent cone,

and thus tends to force the latter into the end of the material roll.

By the provision of the friction braking means on each roll carrying shaft, it will be apparent that no matter how quickly the material may be drawn out in laying off a length to be cut, the roll will not be made to spin and loosen up the remaining material, as would be the case if there were no restraining means on the shaft. Also after the material has been cut loose from the main body of the roll, the frictional engagement of the strips 21 upon the remaining end will prevent the latter from sliding back into the cabinet so that the end will always be convenient when more of the roll is desired.

I claim:

1. A dispensing structure for a plurality of rolls of material, comprising a pair of spaced supports, a plurality of shafts connecting between and carried by said supports and each adapted to carry a roll of material, and securing means for the ends of a plurality of rolls of material carried by said shafts, consisting of a plurality of flat bars disposed below said shafts and parallel therewith and in superimposed relation, a vertically disposed guide at each end of said plurality of strips and slidably receiving the adjacent ends of the strips whereby the latter may be moved and separated vertically, and an expansion spring means in each of said guides engaging the uppermost one of the strips and exerting a downward pressure upon all of the strips whereby ends of material drawn between these strips will be held against accidental displacement.

2. In a dispensing means for a plurality of rolls of material, supporting means for a plurality of such rolls consisting of a series of rotatably mounted shafts each adapted to pass through and support a roll, and means for engaging and holding the free ends of said rolls, comprising a pair of vertically disposed channel members arranged in spaced relation in a line extending transversely of said support at an elevation below said shafts, a bar member extending across the upper end of each of said channeled members, a plurality of material clamping bars disposed in superimposed relation with their ends slidably engaged in said spaced channel members, and an expansion spring in each of said channel members interposed between the bar member extending across the upper end thereof and the uppermost one of said plurality of bars, said springs constantly urging said plurality of bars together for gripping engagement with the ends of the material from said rolls.

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