

No. 876,089.

PATENTED JAN. 7, 1908.

A. D. PHILLIPS.  
DISPLAY APPARATUS.  
APPLICATION FILED MAY 18, 1907.

Fig. 1.

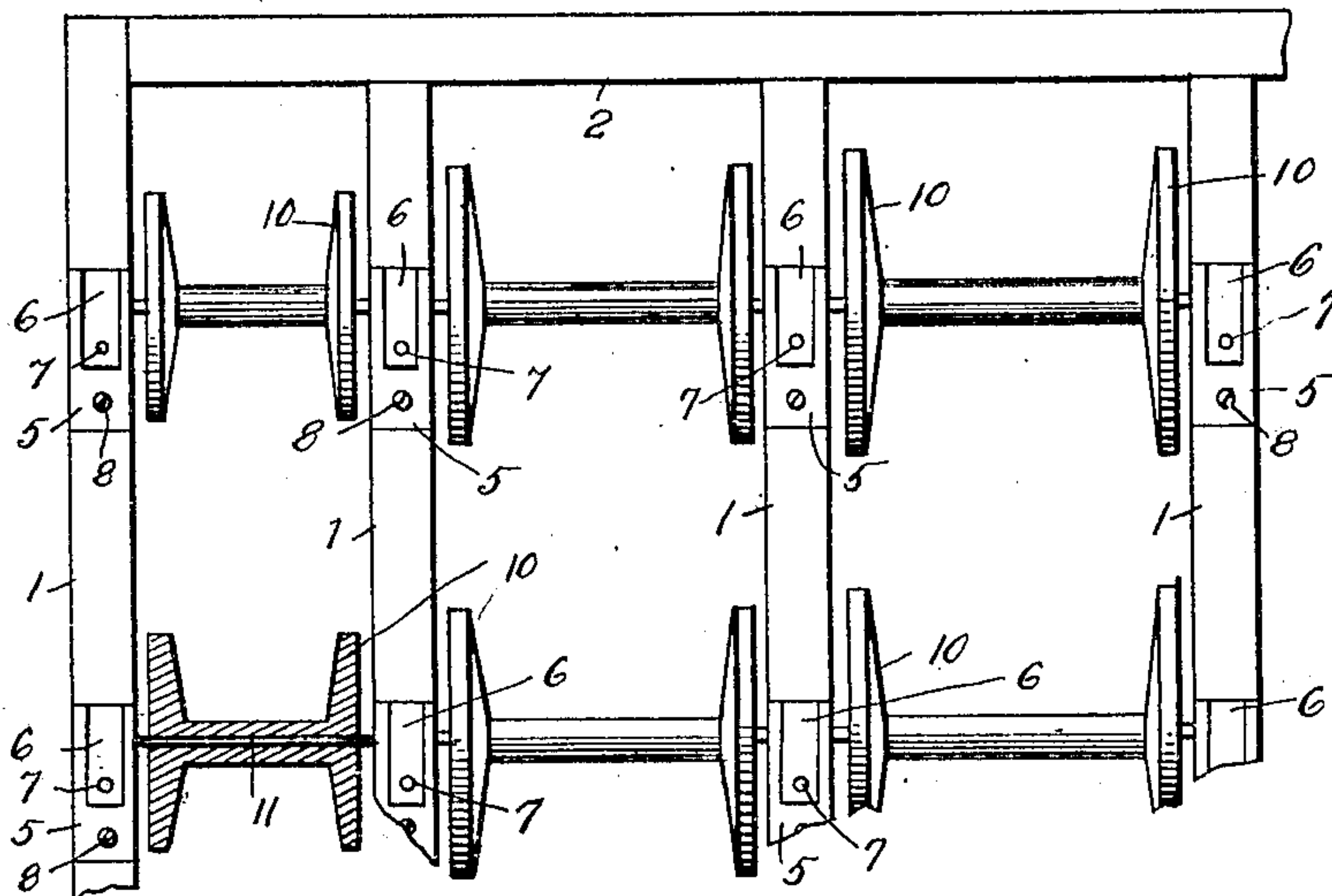


Fig. 2.

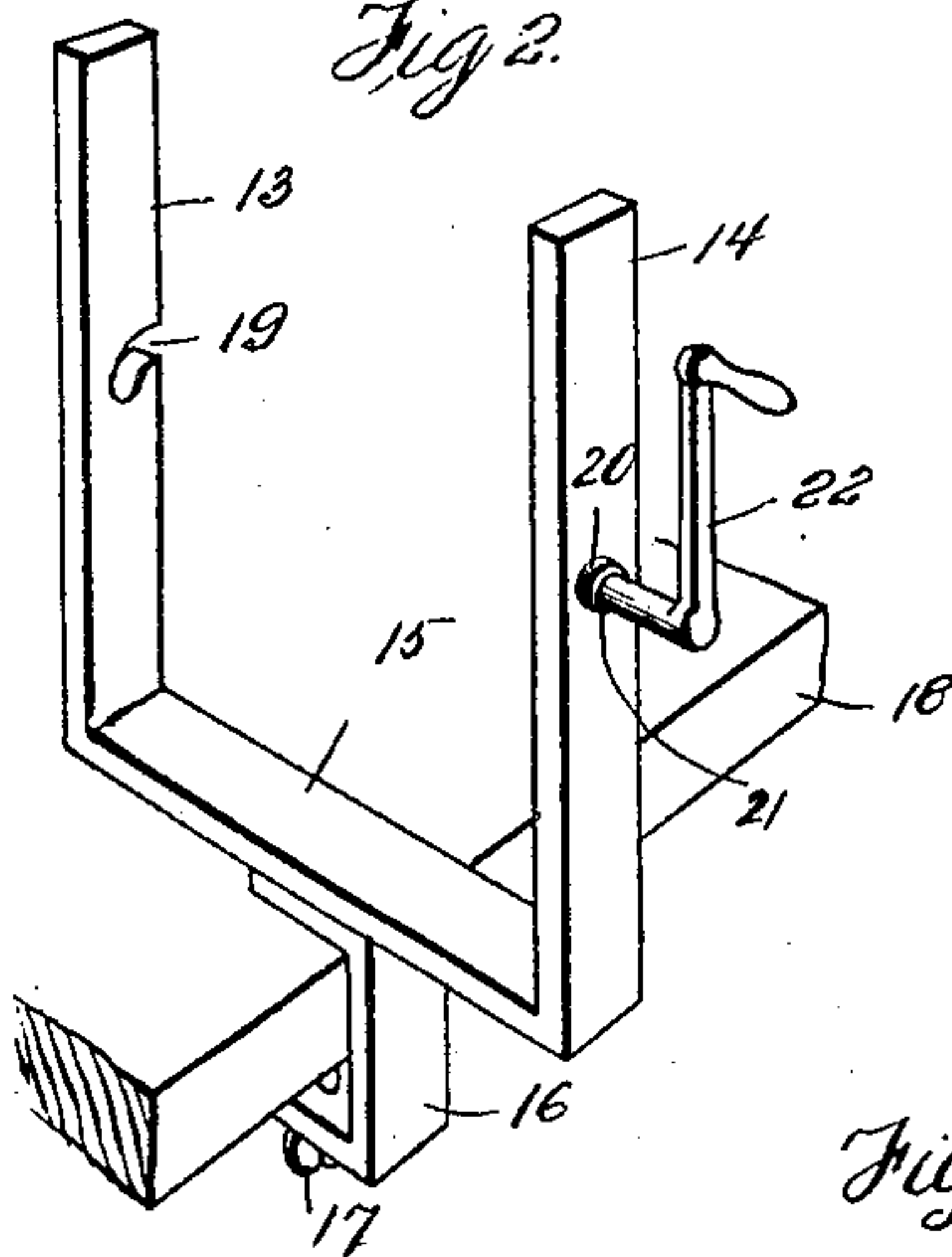


Fig. 3.

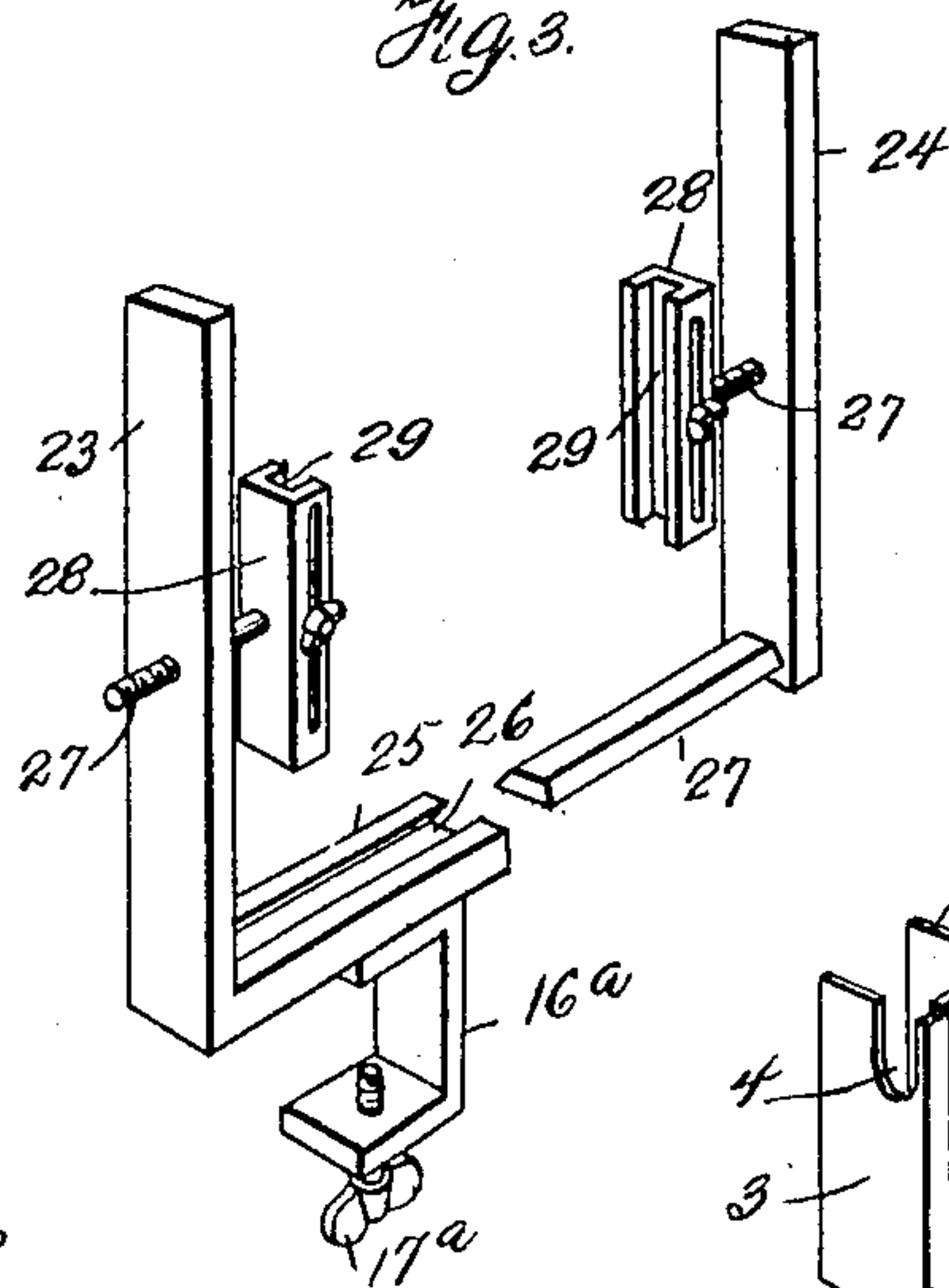


Fig. 4.

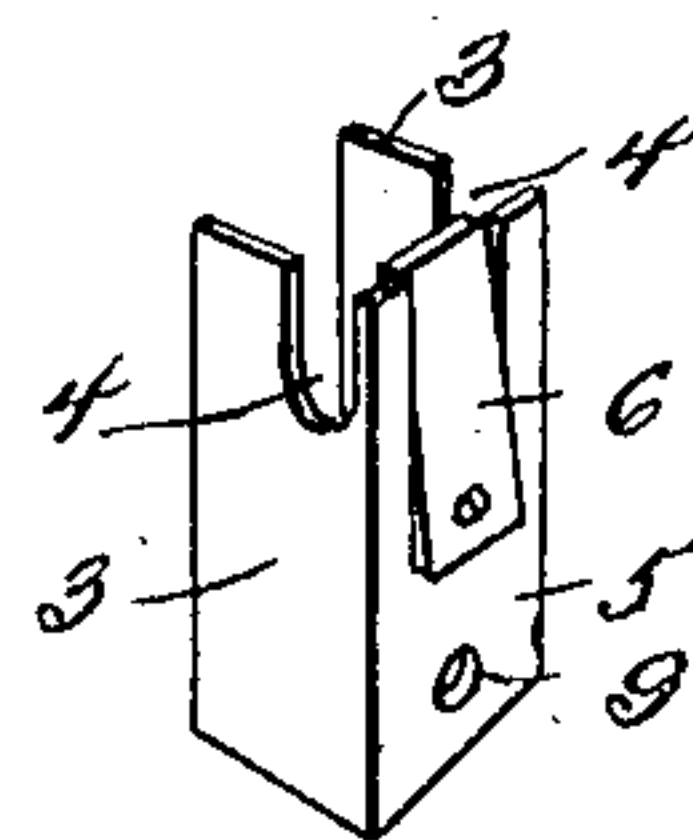
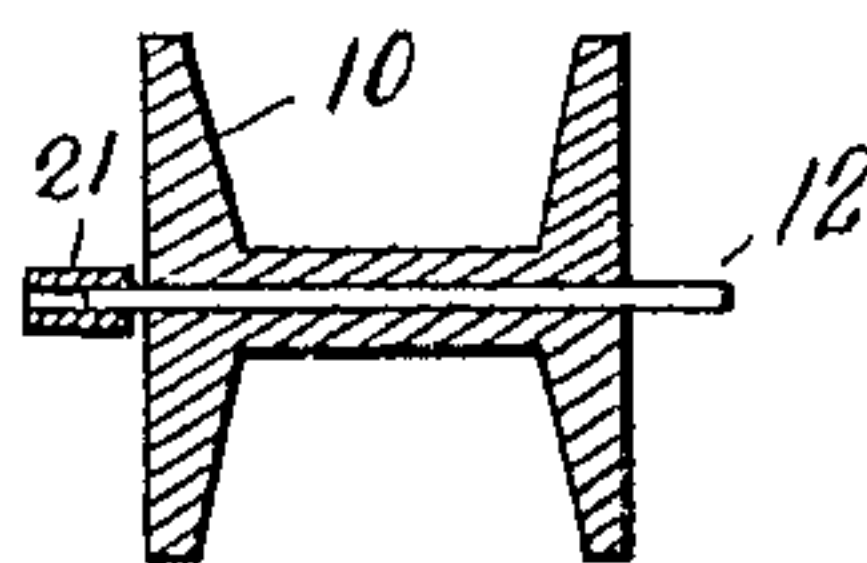


Fig. 5.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALBERT D. PHILLIPS, OF WAYNESBURG, PENNSYLVANIA.

## DISPLAY APPARATUS.

No. 876,089.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed May 18, 1907. Serial No. 374,378.

*To all whom it may concern:*

Be it known that I, ALBERT D. PHILLIPS, a citizen of the United States of America, residing at Waynesburg, in the county of Greene and State of Pennsylvania, have invented certain new and useful Improvements in Display Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to display apparatus especially designed for the display of laces, ribbons and like articles of merchandise which are ordinarily wound upon a supporting nucleus of wood or card board.

15 The primary object of the invention is, to provide simple and inexpensive means for unwinding laces or other material from the support upon which they are wound and rewinding the same upon spools.

20 A further object of the invention is, to provide a rack of novel construction upon which said spools are removably and revolvably supported.

25 The construction of the improvement will be fully described hereinafter, in connection with the accompanying drawing which forms a part of this specification, and its features of novelty will be set forth in the appended claims.

30 In the drawing:—Figure 1 is a front elevation of a portion of a rack forming a part of the invention, Fig. 2 is a view in perspective of a winding frame for transferring the merchandise from its center support to the spools of the rack, Fig. 3 is a similar view of an unwinding frame constituting a part of the apparatus, Fig. 4 is a perspective view of one of the spool supporting and retaining hangers, and, Fig. 5 is a longitudinal section of one of the rack spools.

40 The frame of the rack consists of parallel equi-distant vertical bars 1 connected at top and bottom by horizontal bars 2. The vertical bars 1 are recessed to receive metallic hangers each comprising parallel sides 3 formed at their ends with slots 4, and a front plate 5 longitudinally slotted to receive a flat spring 6 secured at its lower end by a screw 7, extending into the frame bar. As shown in Fig. 1 these hangers are arranged in horizontal rows, and are secured in position by screws 8 extending through openings 9 in the front plates 5.

55 Each of the spools 10 is mounted upon a wire 11 extending through the axial center of the spool and projecting beyond the ends

thereof to provide journals 12 which have bearing in the slots 4 of the hangers. These axial supports are keyed or otherwise secured to the spools to turn therewith. 60

In Fig. 2 is shown a winding device adapted for use in connection with the rack above described, and comprising parallel vertical arms 13 and 14 connected at their lower ends by a transverse bar 15 from which depends 65 a clamp 16 having a thumb screw 17 extending through a threaded opening in the lower arm of the clamp to securely clamp the device to the edge of a table 18 or like support.

The arm 13 of the winding frame is provided with an open ended curved slot 19 to receive one of the journals of the spool and the other arm 14 of said frame is formed with a circular opening 20 to receive the other journal of the spool and also to permit of the 75 insertion of the hollow end 21 of a crank handle 22 for revolving the spool.

In connection with the winding device and rack I employ an unwinding frame comprising parallel vertical arms 23 and 24 (see Fig. 80 3) connected at their lower ends by an adjustable cross-bar consisting of an arm 25 projecting at right angles from the vertical arm 23 and formed on its upper side with a dove tail groove 26, and a tongue 27 projecting at right angles from the vertical arm 24 85 and corresponding in cross section to that of the groove 26. The adjustability of the unwinding frame adapts it for use with rolls of different length. Depending from the 90 grooved arm 25 is a clamp 16<sup>a</sup> having a thumb screw 17<sup>a</sup> for the attachment of the device to a suitable support.

Extending through horizontally alined openings formed in the vertical arms 23 and 95 24 are revoluble pins 27, each carrying at its end a block 28. These blocks are longitudinally grooved on their confronting faces 29 to adapt them to receive the ends of the board or block upon which the merchandise 100 is originally wound at the factory and the blocks 28 are also longitudinally slotted at one side to receive adjustable thumb screws 30, for securing the block or board in place.

The utility and operation of the improved 105 apparatus will be readily understood. The original roll of merchandise is placed in position upon the unwinding frame shown in Fig. 3, and one of the spools 10 is placed in position upon the winding frame. The crank 22 110 is then fitted upon the end of the axial support 11 of the spool, and the merchandise is



unwound from the original roll and wound upon the spool, after which the spool is placed in position upon the display rack.

It will be apparent that any one of the  
5 spools may be readily removed from the rack, and as quickly replaced thereon, and also that the material wound upon the spools may be easily unwound without removing the spools as the latter will freely revolve in the  
10 bearings 4, their axles 11 being retained in position by the pressure of the springs 6 upon the wire 11 of the spools and prevents independent movement of the same.

The improvement provides a useful and  
15 convenient accessory for dry-goods and millinery establishments, as it avoids the necessity of handling the more or less bulky original packages of merchandise, and also serve to display a variety of goods within a small  
20 space.

An important feature of my invention is that by preventing independent movement of the spools, the spools cannot unwind by their own weight.

25 Another novel and important feature of the invention is that the rack can be suspended from a ceiling over a counter so that

it takes up no floor or counter space whatever.

I would have it understood that the in- 30  
vention includes all such changes and modifications in the details of construction of the several parts of the apparatus, as may fall within the scope of the following claims.

Having fully described my invention what 35  
I claim and desire to secure by Letters Patent, is,

In a display apparatus, the combination of a supporting frame comprising parallel bars each provided with a plurality of re- 40  
cesses, hangers fitted in said recesses and having bearings, said hangers provided in their outer faces with slots, springs carried by said hangers and projecting into the slots thereof, and spools having axles seated in the bear- 45  
ings of said hangers and held therein by said springs.

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

ALBERT D. PHILLIPS.

Witnesses:

S. M. SMITH,  
M. R. TRAVIS.