

A. S. WALLEY.

RACK.

APPLICATION FILED MAY 27, 1907.

921,926.

Patented May 18, 1909.

8 SHEETS—SHEET 1.

Fig. 1.

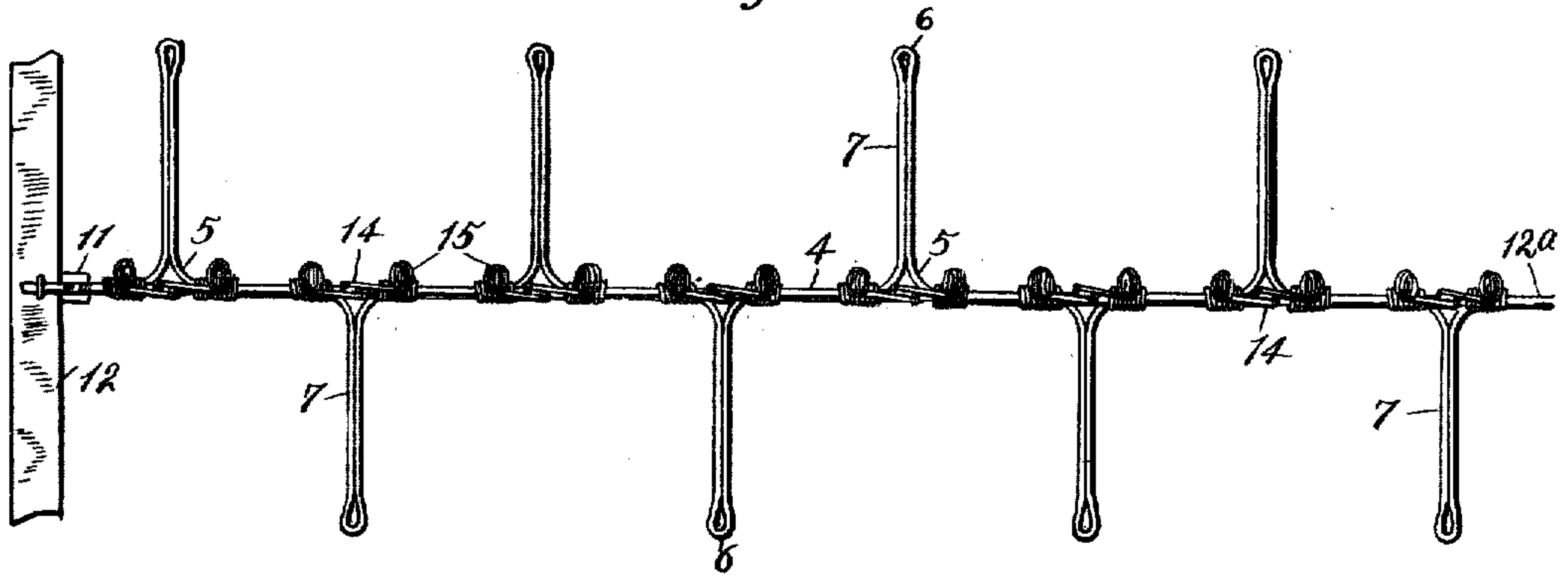


Fig. 2.

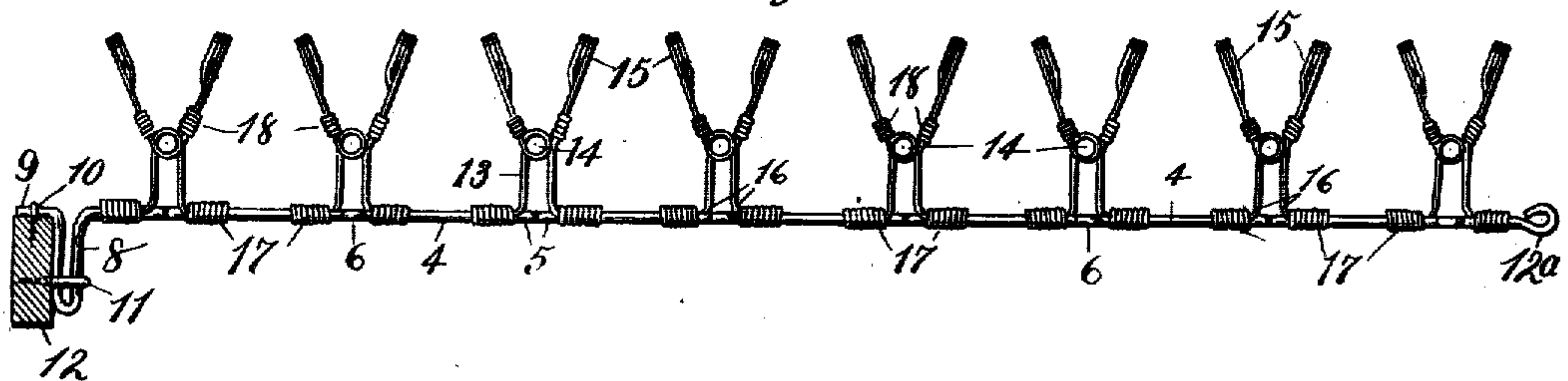
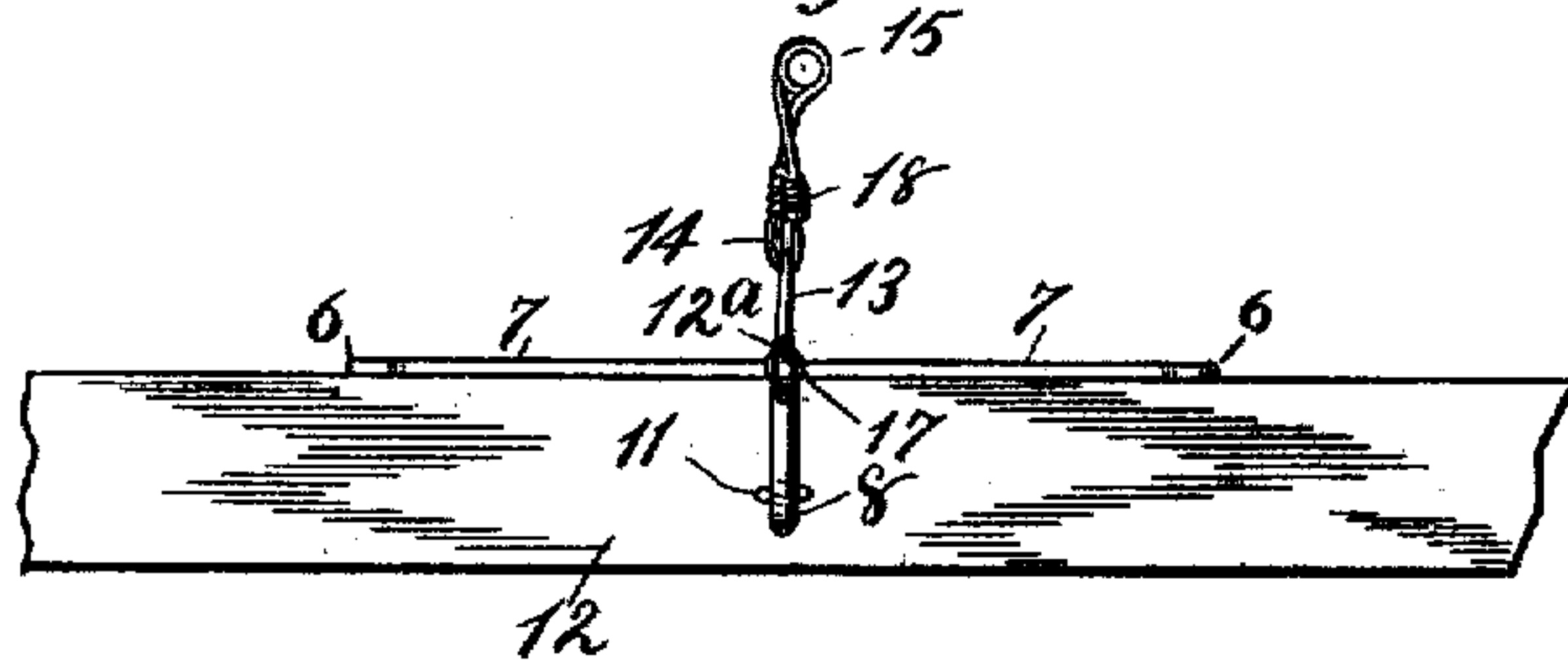


Fig. 3.



Witnesses:

Chas. F. Barnes

Chas. J. Marty

Inventor

A. S. Walley

By

Frederick P. Ryan
Att'y.

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3 SHEETS—SHEET 2.

Fig. 4.

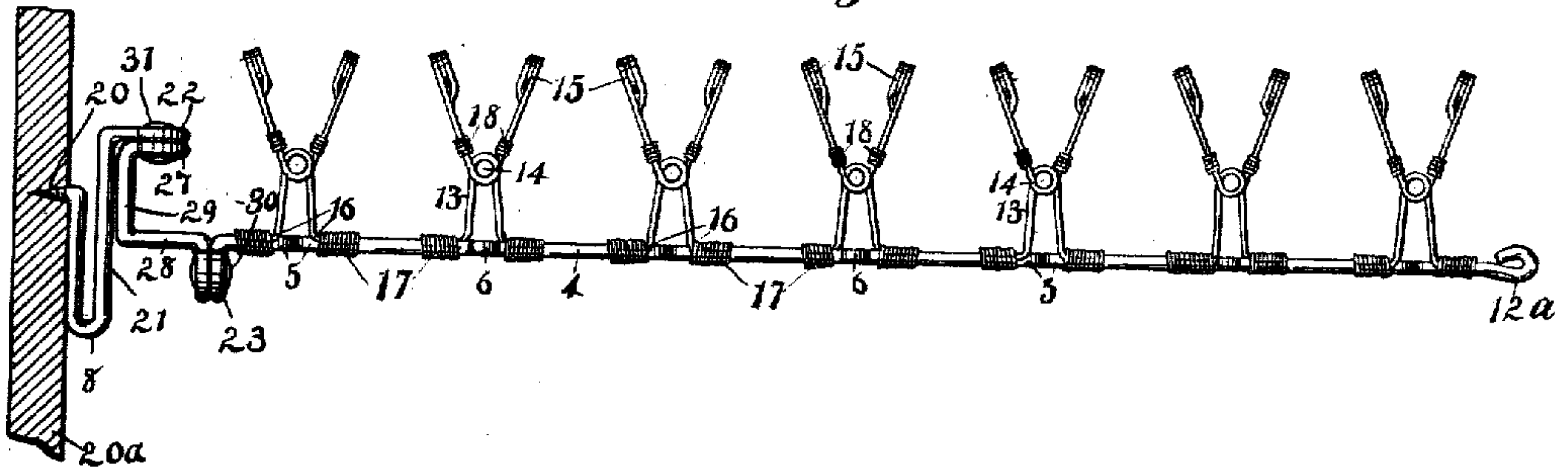


Fig. 5.

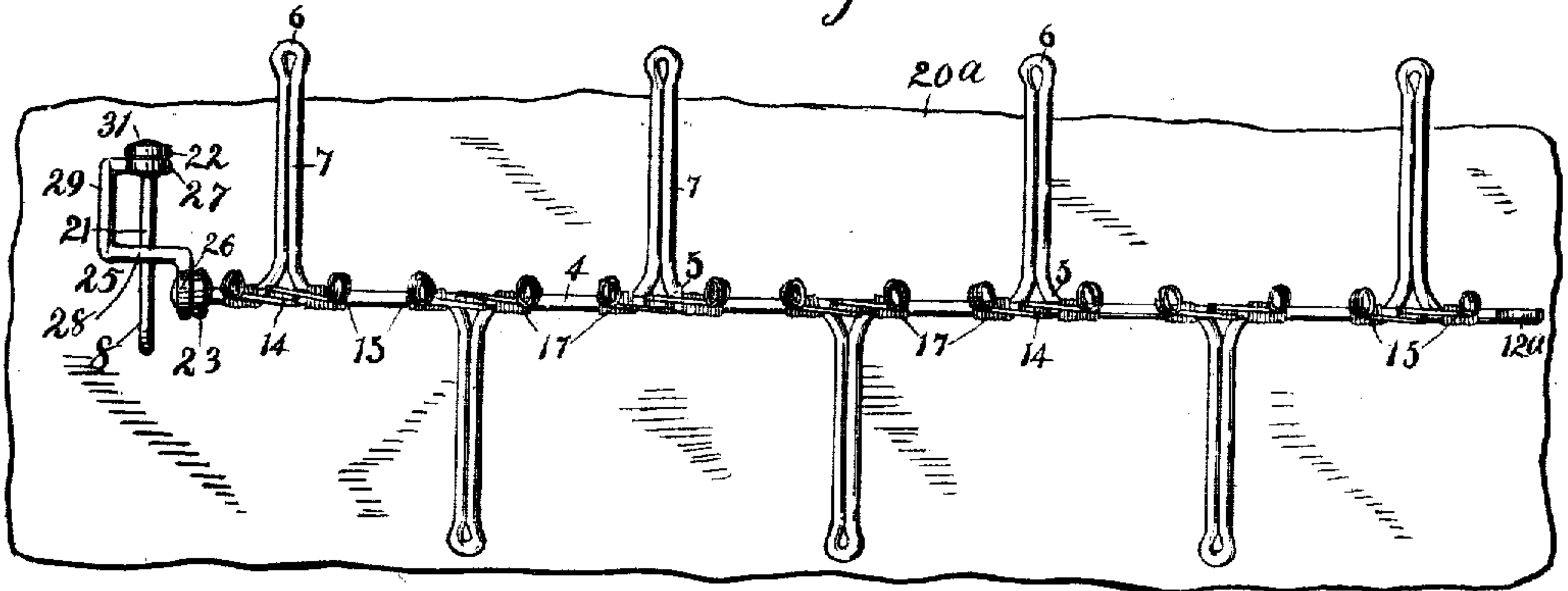
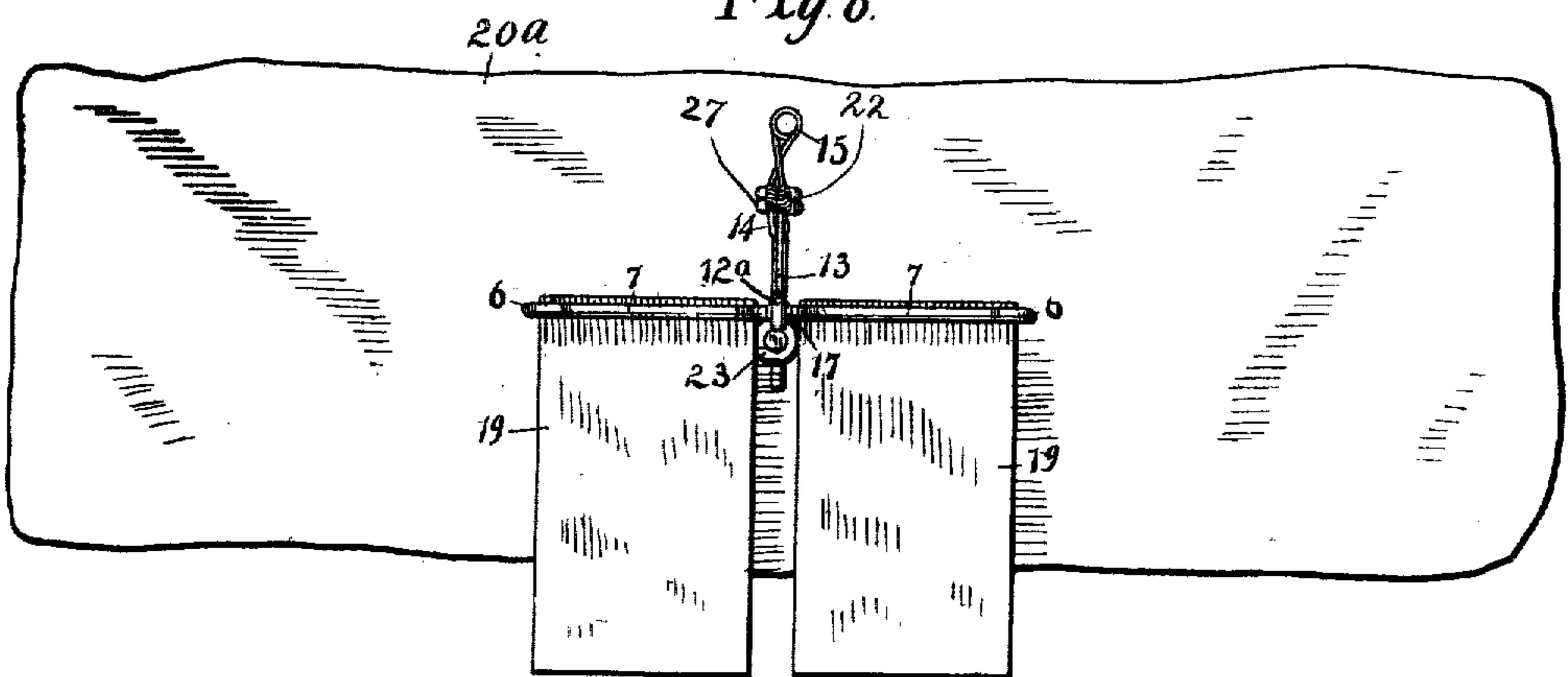


Fig. 6.



Witnesses:

Char. F. Basson

Matt. J. Marty

Inventor

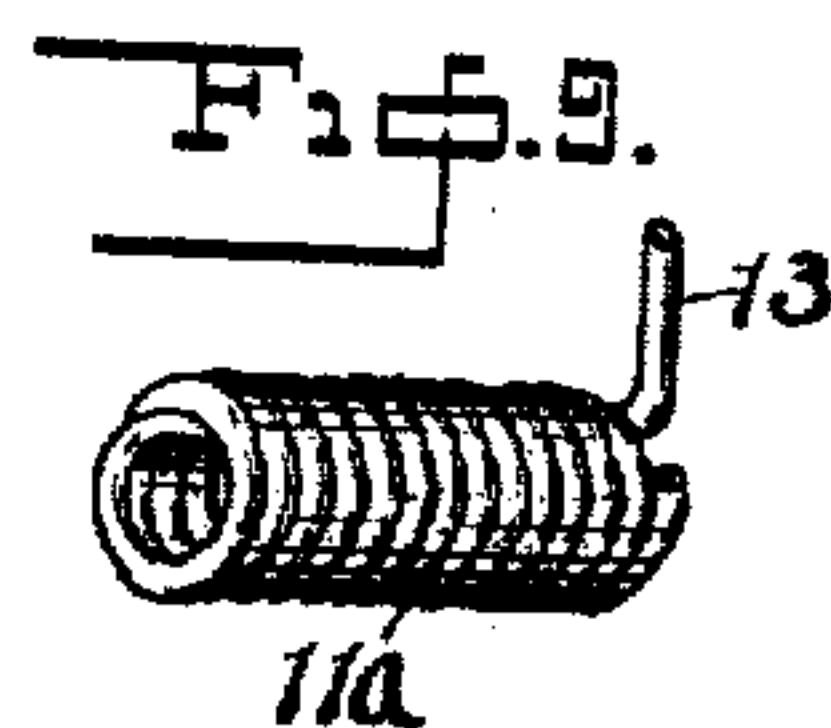
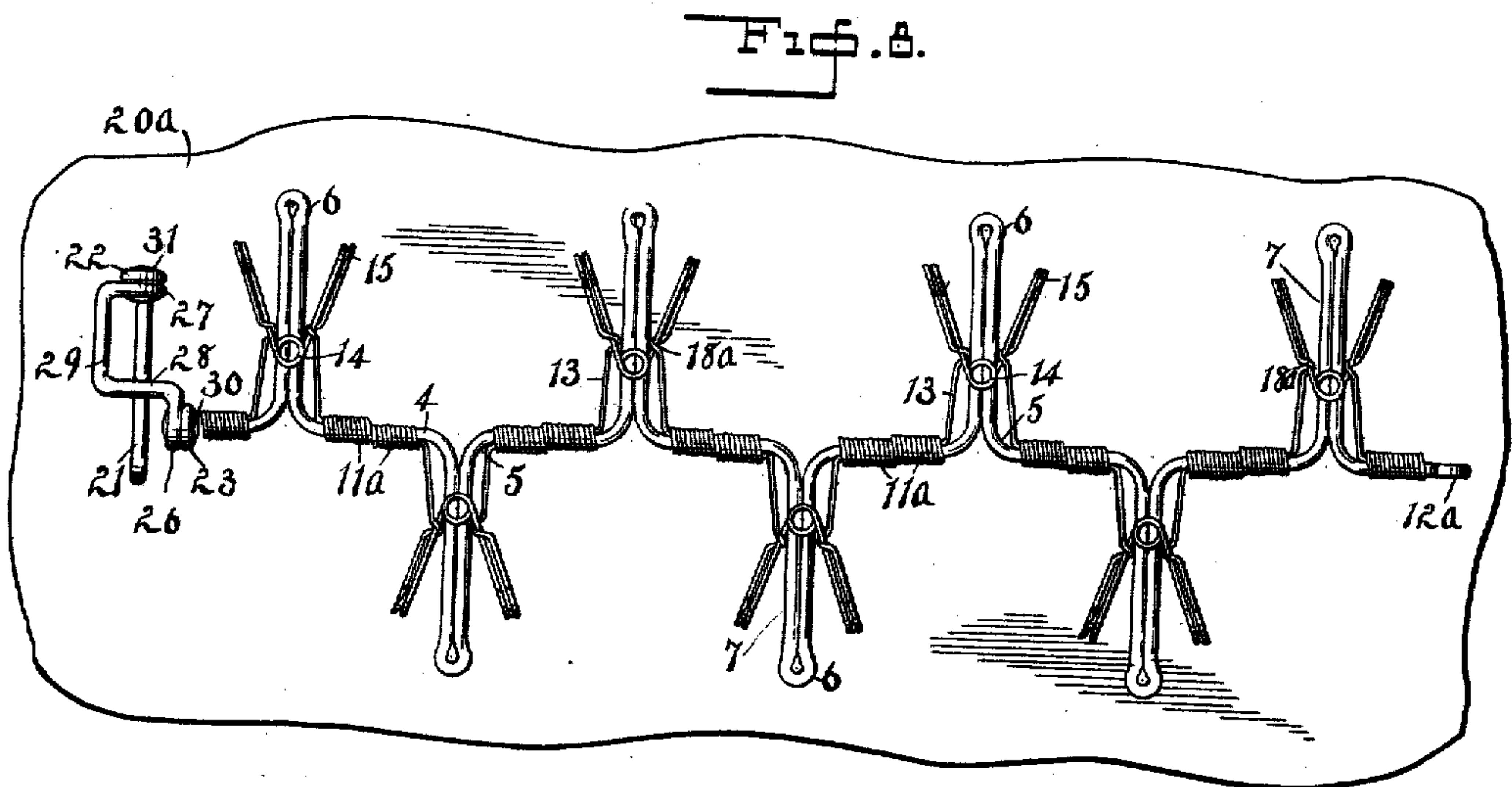
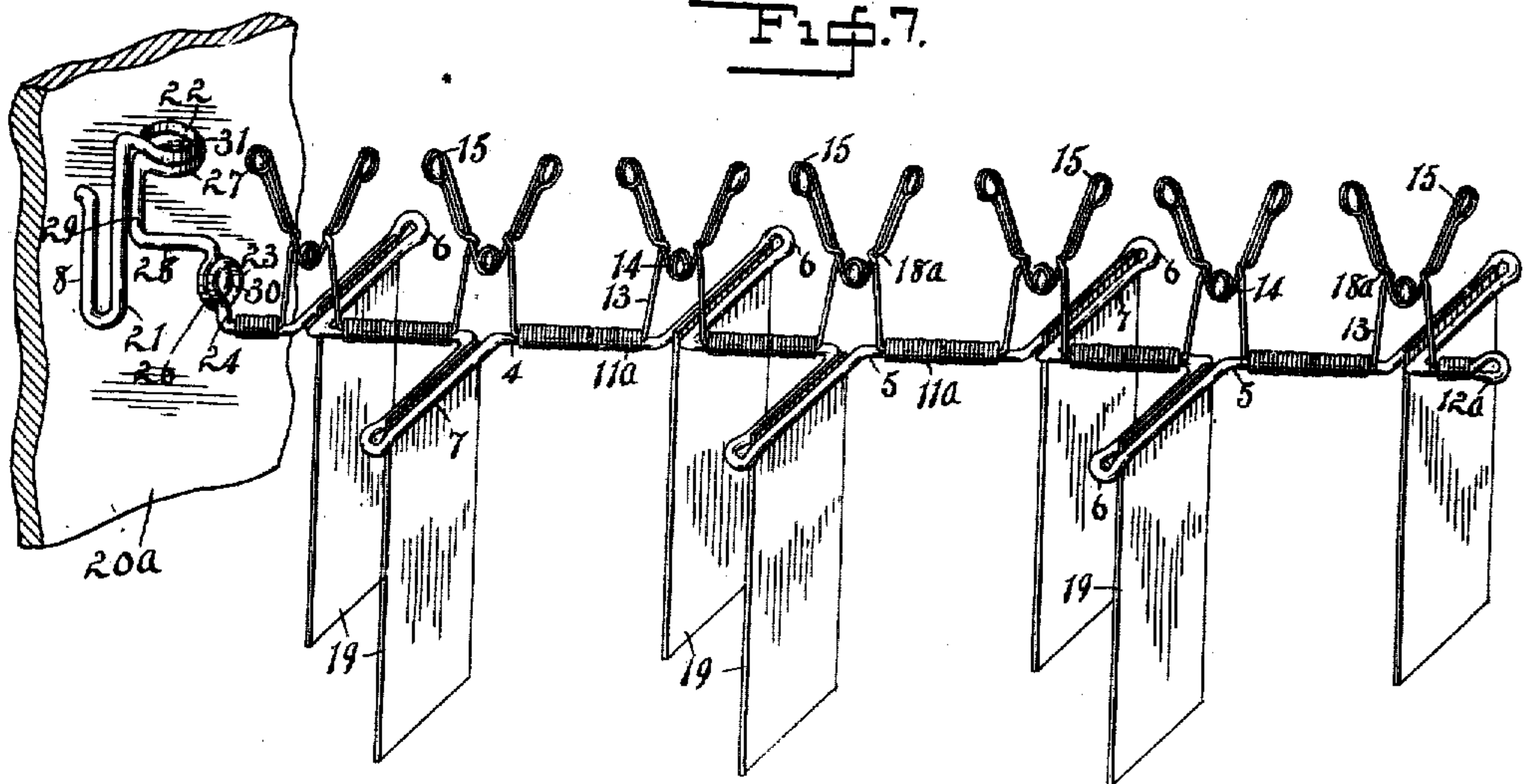
A. S. Walley

By Fredrick Benjamin
Att'y.

A. S. WALLEY.
 RACK.
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Patented May 18, 1909.
 3 SHEETS—SHEET 3.



WITNESSES:
 Matthew J. Marty
 M. A. Milord

INVENTOR
 A. S. Walley
 BY Frederick C. Curran
 ATT'Y.

UNITED STATES PATENT OFFICE.

AMBROSE S. WALLEY, OF STANFORD UNIVERSITY, CALIFORNIA.

RACK.

No. 921,926.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed May 27, 1907. Serial No. 375,818.

To all whom it may concern:

Be it known that I, AMBROSE S. WALLEY, a citizen of the United States, residing at Leland Stanford University, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Racks, of which the following is a specification.

My invention relates to devices for drying films or plates used in photography.

My improvement consists in general of a bracket adapted to be fixed to any convenient support so as to be extended horizontally and provided with slotted arms arranged to hold the films by spring action, means being provided for opening the slots for inserting and removing the films, and also for folding the bracket so as to be out of the way when not in use.

In the accompanying drawings which form a part of this specification, my invention is fully illustrated in the following views:—

Figure 1 is a top plan view of my improved film drier shown attached to a shelf; Figs. 2 and 3 are side and end views, respectively, of the bracket shown in Fig. 1; Fig. 4 is a side elevation of a modified form of bracket attached to a wall; Fig. 5 is a view of the same bracket in its folded position, and Fig. 6 is an end view of the bracket shown in Fig. 4, showing the manner of suspending the photographic plates; Fig. 7 is a perspective view of a rack supplied with modified clips, with films suspended in the slotted arms; Fig. 8 is an elevational view of the rack shown in Fig. 7, in its folded position, and Fig. 9 is an enlarged fragmentary view showing one of the cushioning sleeves in perspective.

Referring to the drawings the numeral 4 indicates a slender rod or wire having bends 5, 6, formed therein at regular intervals to produce a series of arms 7 extending laterally in the same plane, the alternate arms projecting in opposite directions from the median line. Near one end the wire is bent upon itself in a plane at right angles to the plane of the arms 7 to form a loop 8. The end 9 beyond said loop rests upon the support 12 and is fastened in place by a staple 10 driven into the said support, the loop 8 being rigidly held in the same manner by a staple 11. The opposite end of the rod 4 is finished with an eye 12^a to prevent injury

The opposite sides of each arm 7 are nor-

mally held in apposition by the resiliency of the rod from which they are formed and the films are inserted between these opposing sides where they are held by friction. To facilitate the separation of these members for the purpose of inserting the films, I provide spring clips formed by bending a single wire in the following manner: midway from the ends the wire is given two or three turns forming a coil 14. At equal distances from this coil on each side the wire is again coiled to form wings or handles 15. The ends of the wires are then carried back past the coil 14 where they form standards 13 the extreme ends of the wire being bent at 16 nearly at right angles to the said standard and secured to the rod 4 on opposite sides of the interval at the base of the arms 7 by lashings 17 of finer wire. Where the straight portions of the wire lie parallel between the coil 14 and the handles 15, they are also secured by lashings 18 of fine wire. These lashings may be further secured by soldering if desired.

In Figs. 4, 5, and 6, are shown a modified form in which provision is made for allowing the bracket to be swung upon pivots to bring it parallel with the face of the wall to which it is attached and at the same time to turn the portion carrying the arms 7 so that the latter may be in a vertical plane and lie flat against the wall so as to be out of the way when not in use. To this end the loop 8 is formed of a separate piece one end being furnished with threads 20, by means of which the part is firmly secured to the wall 20^a. The other end 21 is carried above the screw point and then bent at a right angle and has an eye 22 at the extremity. An eye 23 is also formed on the proximal end of the main rod 4, which is bent at a right angle at 24. The two members thus described are joined by a supporting swivel piece 25 formed of a single piece of rod having eyes 26, 27, at each end bent at right angles. The said rod is then given a bend of 90 degrees near the middle forming two arms 28, 29, the eyes 26, 27, at the extremities of these arms thus lying in planes at right angles to each other. The parts are assembled by securing the eye 23 at the end of the rod 4 to the eye 26 of the arm 28 of the swivel piece by means of a rivet 30. The other arm 29 of said swivel piece is secured to the arm of the loop 8 by a rivet 31 which passes through the eyes 22

and 27. The said rivets are so adjusted when assembled as to hold the parts firmly and yet allow a pivotal movement when joined thereby. It will be observed that the
 5 axes of the pivots lie at right angles with each other so that by turning the bracket laterally on the point 31 the entire device may be swung to the right or left, and by
 10 turning the horizontal portion on the center 30 so that the arms assume a vertical position the part thus turned can be placed in apposition with the face of the wall, the clips projecting horizontally.

Figs. 7, 8, and 9, show a modified form of
 15 clip, in which the wings 15 are formed by coiling the wires in opposite directions in the alternate wings or handles. Instead of being lashed to the rod 4, the ends of the standards 13 are secured thereto by being
 20 coiled back upon themselves, the convolutions thus formed embracing both the wire 13 and the main rod, as shown in Fig. 9. The distal end of each coil 11^a abuts against the coil of the adjacent clip and these coils
 25 serve as resilient cushioning sleeves which prevent lateral displacement of the clips. A special advantage of this arrangement is that the clips are frictionally held upon the rod 4 and may be turned in either direction
 30 about the rod as a center thus permitting the clips to be readily folded out of the way as shown in Fig. 8.

When the bracket is in the position shown in Fig. 4 the arm 28 is in engagement with
 35 the vertical part of the loop 8, thus relieving the strain upon the pivot 31 and adding to the rigidity of the structure.

By pressing the handle 15 of any clip between the thumb and fingers the slot in the
 40 corresponding arm will be opened sufficiently to permit the insertion of a plate or film 19 upon releasing the clip the parts will close again by their elasticity and hold the film firmly in the manner shown in Figs.
 45 6 and 7.

I have illustrated and described in this application for patent a drying rack composed of a single rod or wire, having horizontal arms formed integral therewith and
 50 having a staggered arrangement, the construction being similar to that described and claimed in U. S. Patent No. 826,295, granted

to me July 17, 1906, for drying rack, and I do not, therefore, claim such construction herein, but

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What I do claim is:—

1. The combination with a drying rack formed of a single rod and having a plurality of laterally extending arms, each arm composed of duplicate members held in
 60 yielding contact, of hinged levers mounted on said rod and adapted to separate said members for the purposes set forth.

2. The combination with a drying rack formed of a single wire and having a plural-
 65 ity of laterally extending double arms, of spring connected levers attached to said wire and adapted to separate the members of said arms.

3. The combination with a drying rack
 70 formed of a rod having a plurality of laterally extending double arms, means for separating the members of said arms, and means for securing the rack to a support, of an intermediate member pivotally connected
 75 between the securing means and said rod.

4. A drying rack including a median portion having a plurality of double arms extending laterally therefrom, a bracket adapted to be secured to a suitable support,
 80 and an intermediate swivel piece connecting said median portion with the said bracket.

5. A drying rack, including a median portion having a plurality of double arms extending laterally therefrom, a plurality of
 85 clips pivotally mounted on said median portion and adapted to separate the members of said arms, a bracket adapted to be secured to a suitable support, and a swivel connection between said bracket and the median por-
 90 tion.

6. The combination with a drying rack having a plurality of laterally extending double arms, of resilient members attached to the rack adjacent to the arms and adapt-
 95 ed to separate the lateral portions of said arms.

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

AMBROSE S. WALLEY.

Witnesses:

S. W. CHARLES,
 F. SCHNEIDER.