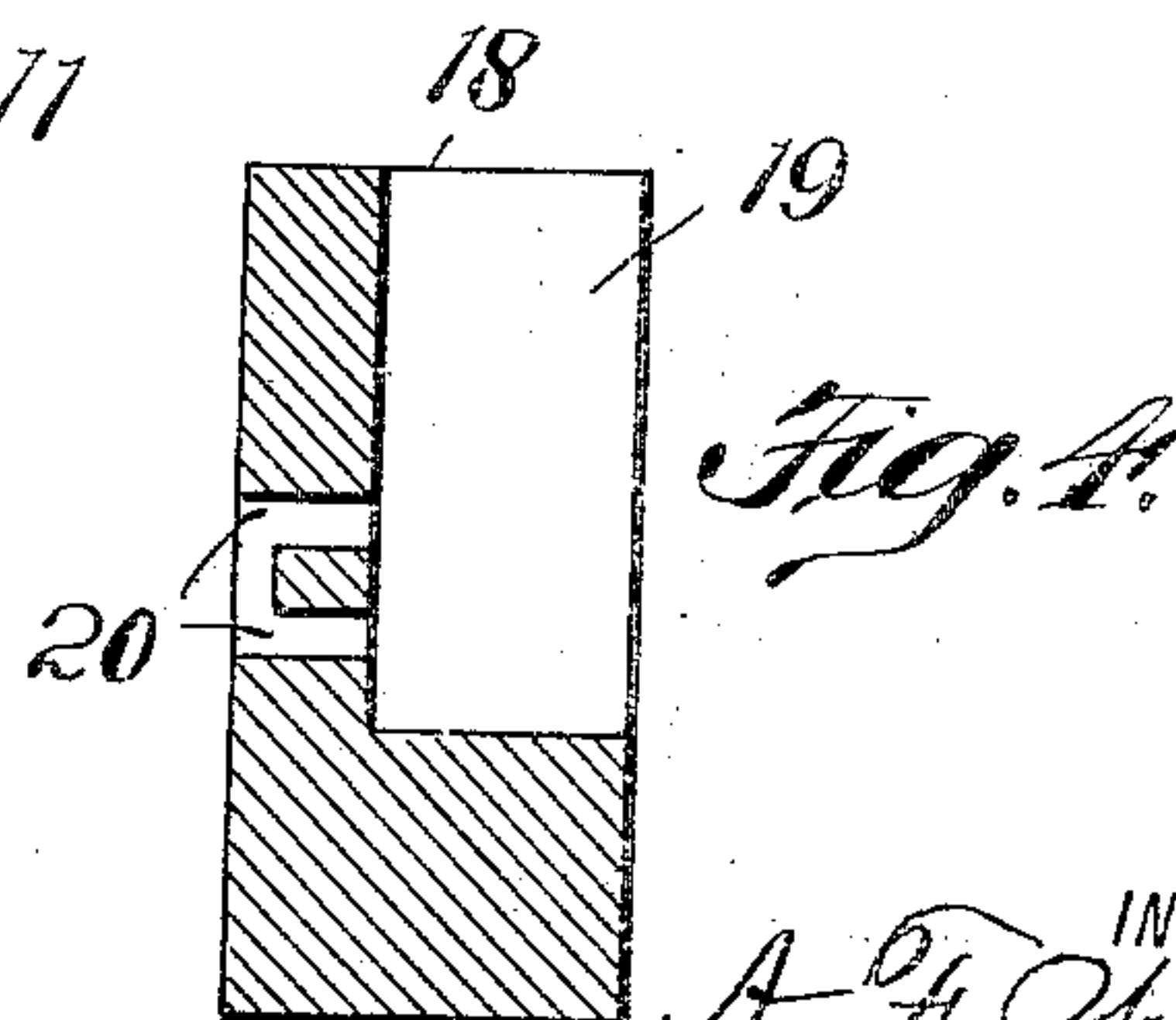
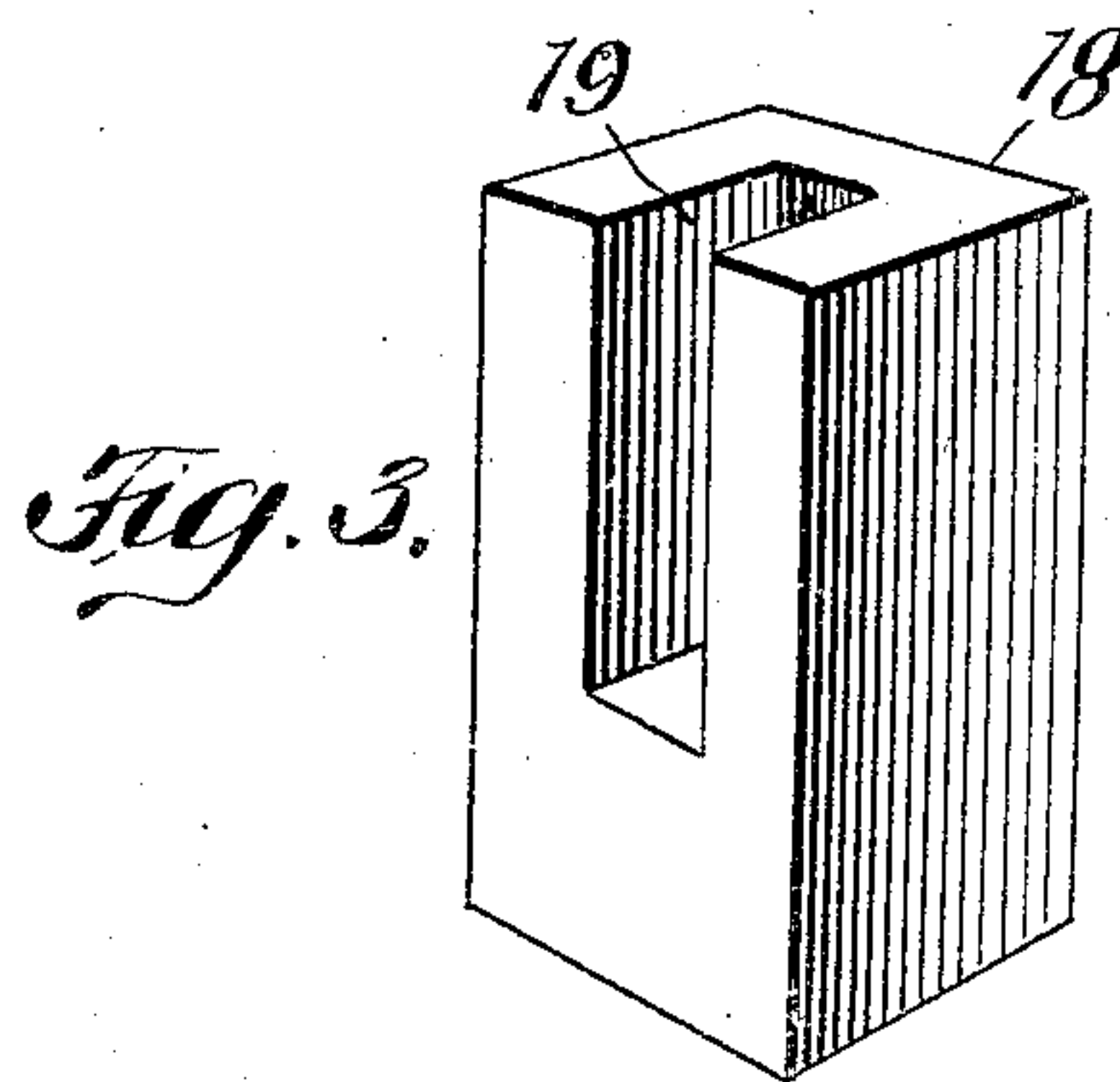
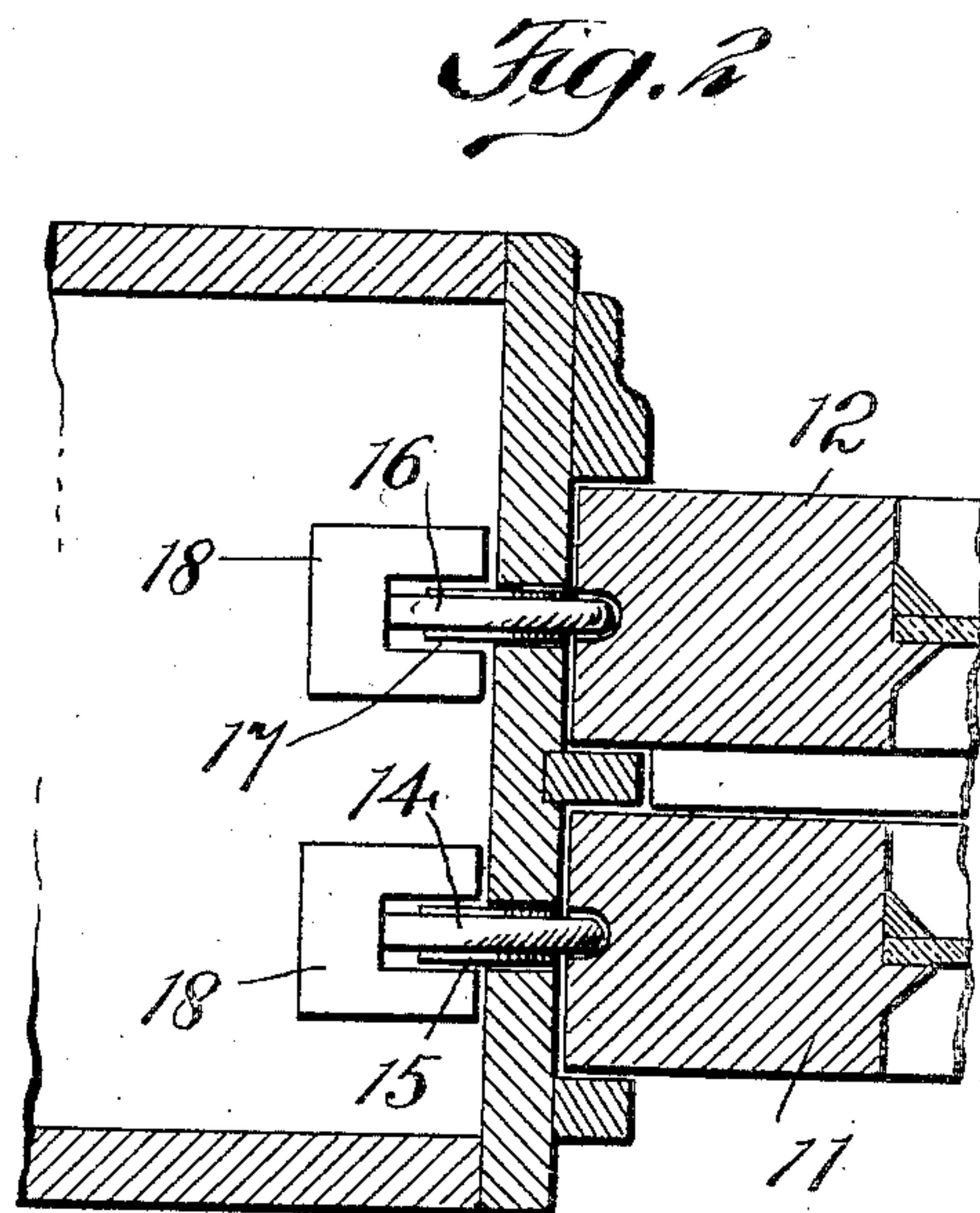
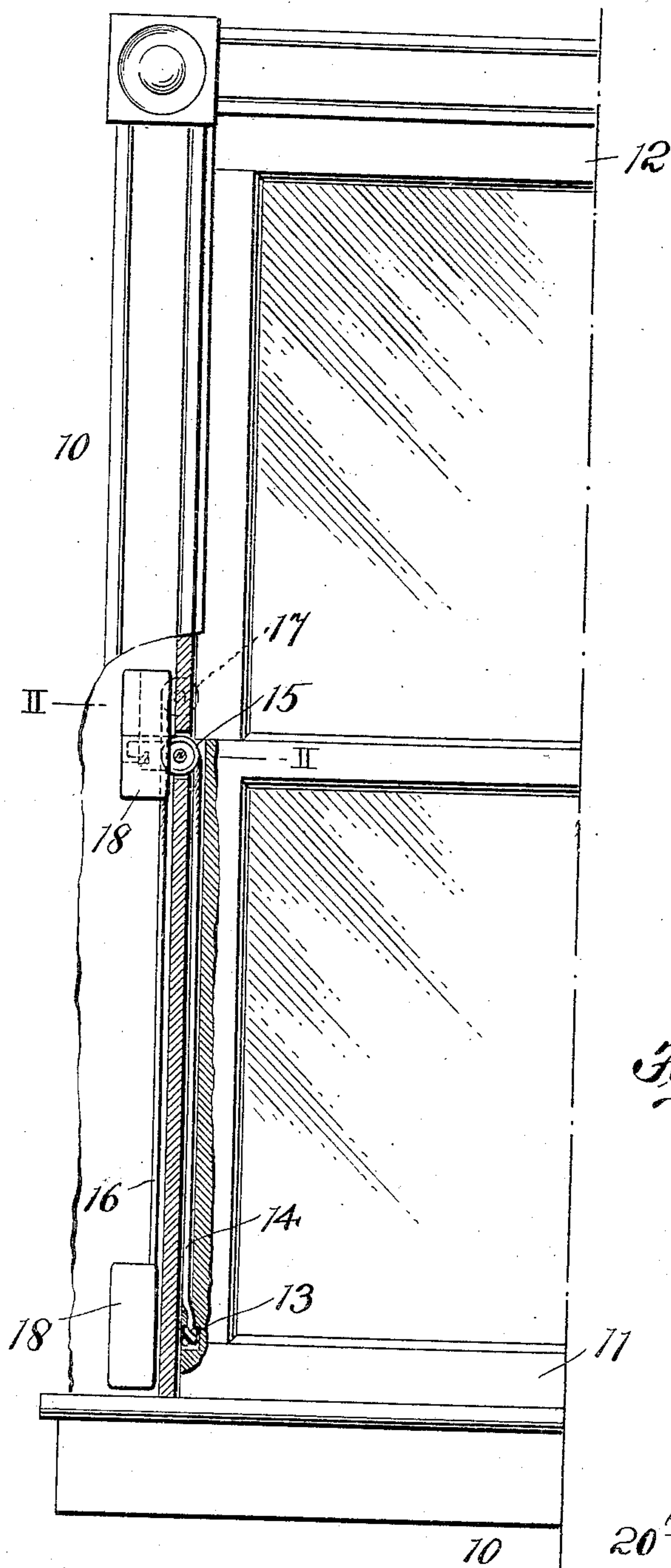


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SASH BALANCE.
APPLICATION FILED MAR. 24, 1908.

929,805.

Patented Aug. 3, 1909.



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ANDRES F. WAHLBERG, OF PERTH AMBOY, NEW JERSEY.

SASH-BALANCE.

No. 929,805.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed March 24, 1908. Serial No. 423,012.

To all whom it may concern:

Be it known that I, ANDRES F. WAHLBERG, a citizen of the United States, and a resident of Perth Amboy, county of Middlesex, and State of New Jersey, have invented certain new and useful Improvements in Sash-Balances, of which the following is a full, clear, and exact description.

This invention relates more particularly to balancing window sashes in such a way that the means employed cannot be seen.

The primary object of the invention is to provide simple and efficient means whereby the window sash may be balanced in such a way that the flexible connection employed to hold the weight may be so arranged that the said connection will be entirely obstructed from view when the sashes are partly or entirely open, thus presenting a much neater appearance to the window and also serving to protect the flexible connection from injury.

A further object of the invention is to provide a simply constructed weight which may be attached to the flexible connection for the window sash in such a way that the said weight will occupy a comparatively small amount of space, and will permit the ordinary sash pulley to enter the weight for a part of its length, so that the weight in its new position will permit the sash to be fully opened.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claim at the end of the description.

In the drawings, Figure 1 is a fragmentary elevation, partly in section, showing one form of window embodying my invention. Fig. 2 is a fragmentary sectional plan, on an enlarged scale, taken on the line II—II of Fig. 1. Fig. 3 is a detail perspective view of one of the weights; and Fig. 4 is a vertical section through the weight.

The window frame 10 may have the lower window sash 11 and the upper sash 12 arranged to move vertically therein or otherwise in the usual way, and said sashes, as well as the frame, may be of any desired form or construction. Each window sash is provided with a groove vertically thereof on either or both sides, and to the lower portion of each sash, as at 13, is fastened a flexible connection 14. This connection may be in

the nature of a chain, cord, or cable, and the flexible connection of the lower sash 11 is adapted to pass around a sheave or pulley 15 arranged in the window frame in the usual manner, but instead of being located at the upper part of the frame it is located adjacent to the upper part of the sash when the latter is in a closed position, so that the entire flexible connection and pulley is entirely covered and protected. The upper sash 12 may have the flexible connection 16 secured thereto, and this connection passes around a sheave or pulley 17 located above and to one side of the pulley 15, and in such a position it will permit the cord to be fastened to the lower part of the sash and still be covered by the sash when the latter is lowered.

Each of the flexible connections is attached at its outer end to a weight 18. This weight is substantially rectangular in cross-section and is adapted to move vertically in the window frame as usual, and said weight is provided with a groove 19 for a part of its length so that the pulley around which the flexible connection passes may enter the groove, and thereby permit the weight to have a further throw than it would have if the weight was made solid. The weights 18 are each provided with the openings 20, extending transversely through the rear wall of groove 19, to permit the cord or other flexible connection to be attached to the weight as shown best in dotted lines in Fig. 1. By this means the flexible connections are entirely concealed from view whether the windows are partly or wholly opened, and the weights are constructed to permit the windows to open to their extreme throw.

From the foregoing it will be seen that simple and efficient means are provided whereby the windows may be properly balanced and the flexible connections employed for this purpose may be concealed from view when the windows are opened or partly opened, and that said invention may be readily applied to windows as ordinarily constructed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

The combination with a window frame and a sash vertically movable therein, of pulleys arranged adjacent to the edge of the sash when in a closed position and in the path of movement of said sash, flexible connections passing around the pulleys and secured to the

sash at the lower part thereof, and a weight for each flexible connection, said weight being substantially rectangular in cross-section and provided with a longitudinal groove extending through a portion of the length thereof to permit the pulley to enter the same, each weight being provided with parallel transverse openings extending through the rear wall of said groove and arranged to

receive the free end of the flexible connection, said transverse openings being connected by a groove. 10

This specification signed and witnessed this twenty-first day of March A. D. 1908.

ANDRES F. WAHLBERG.

Witnesses:

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