

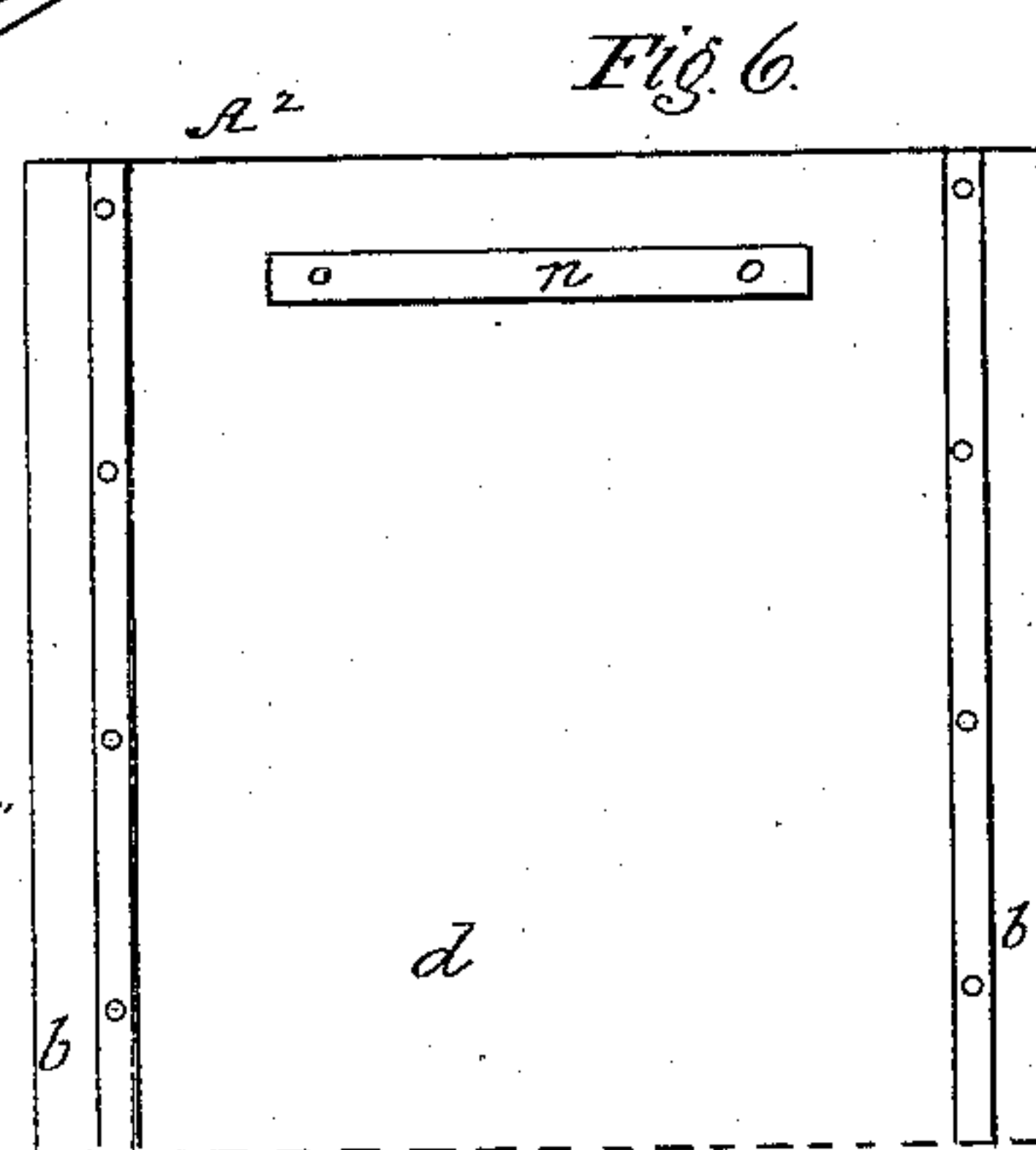
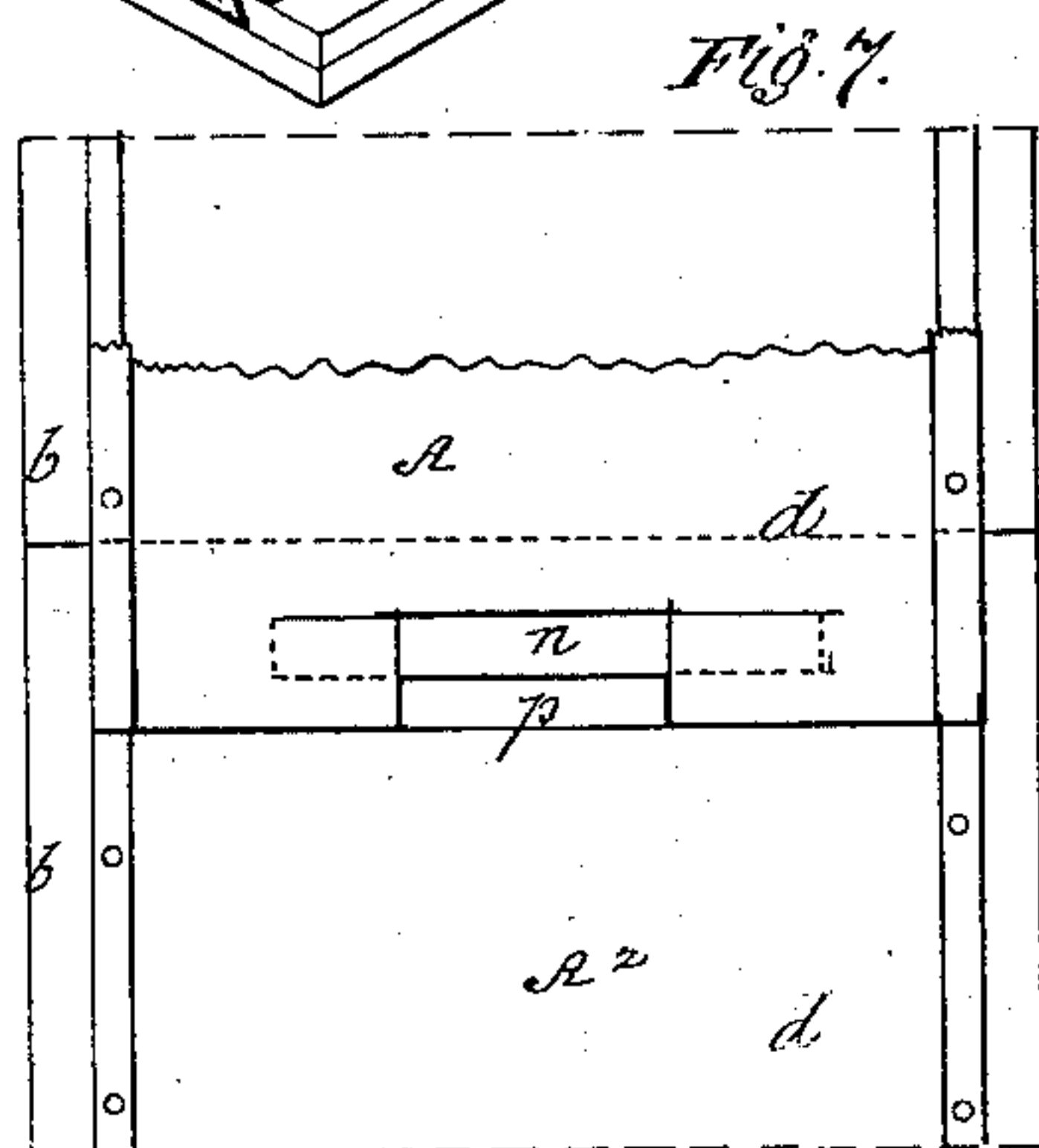
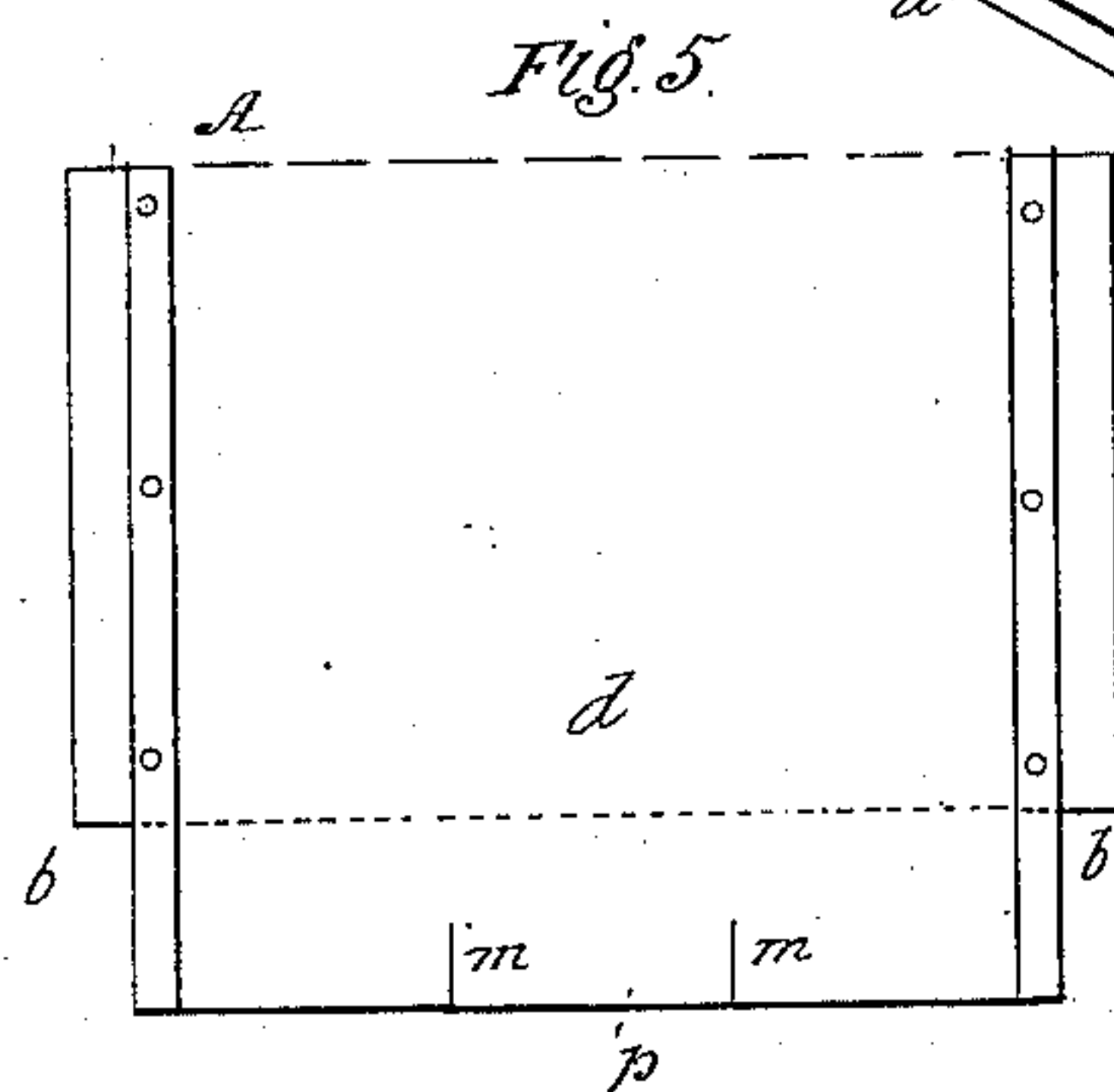
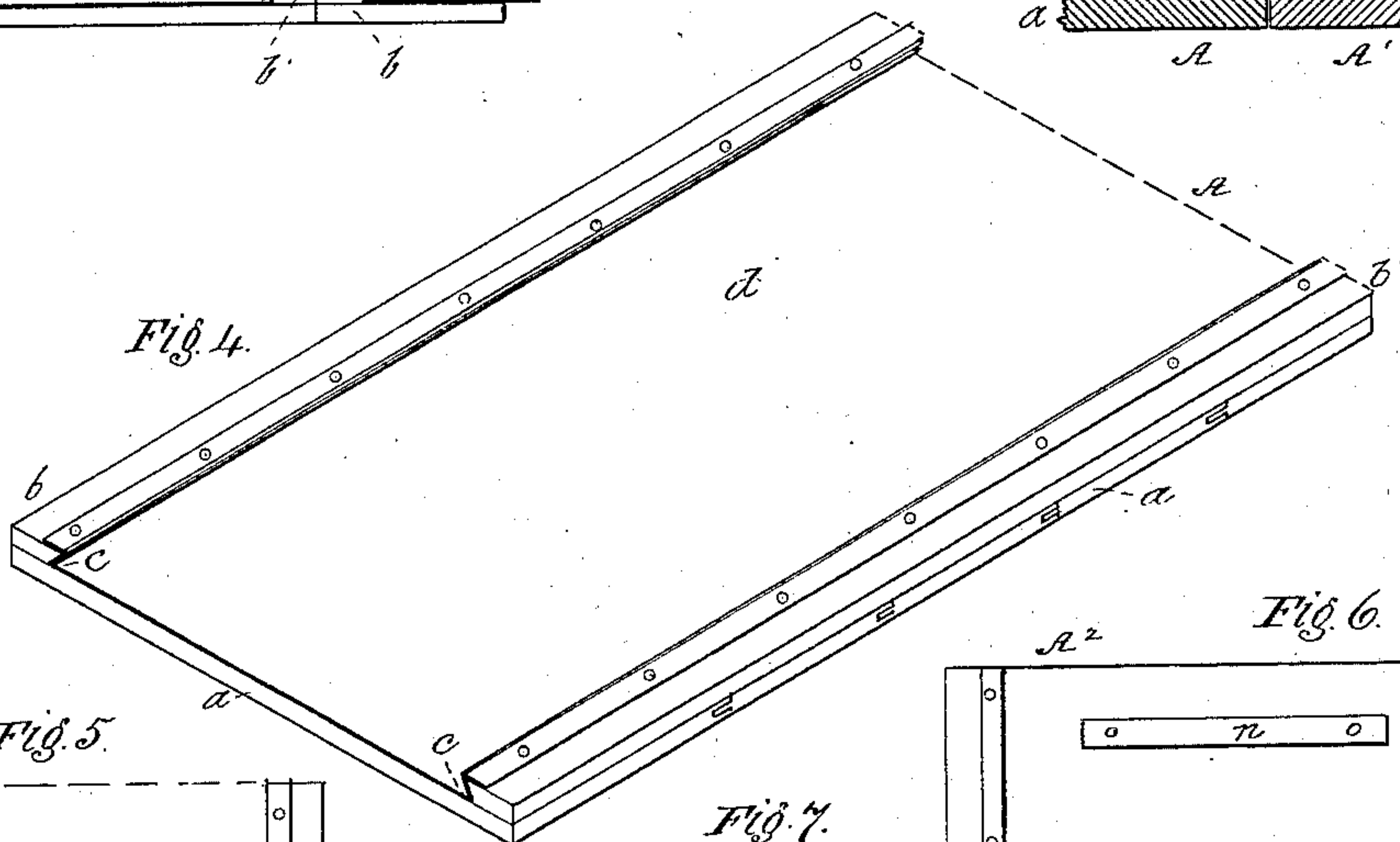
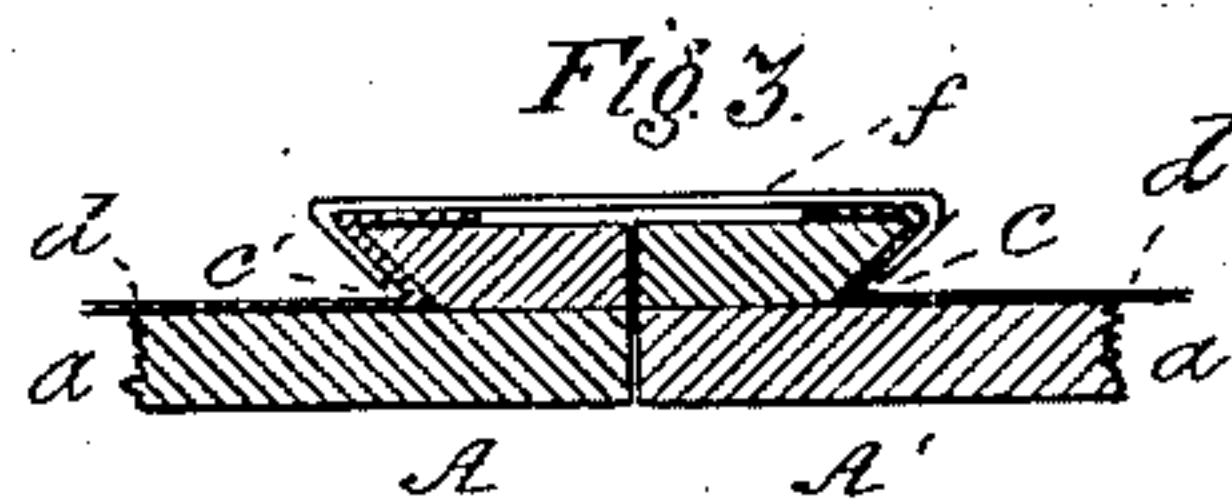
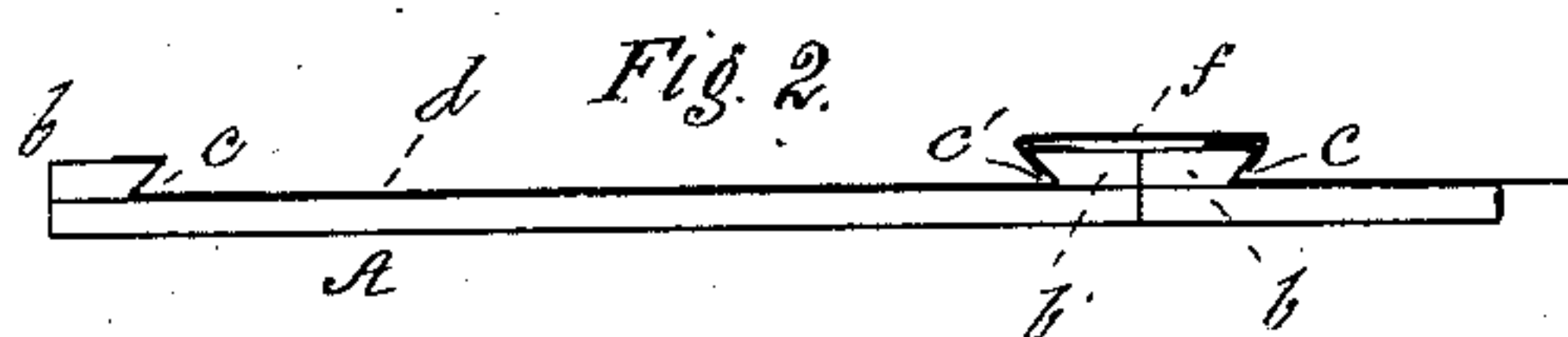
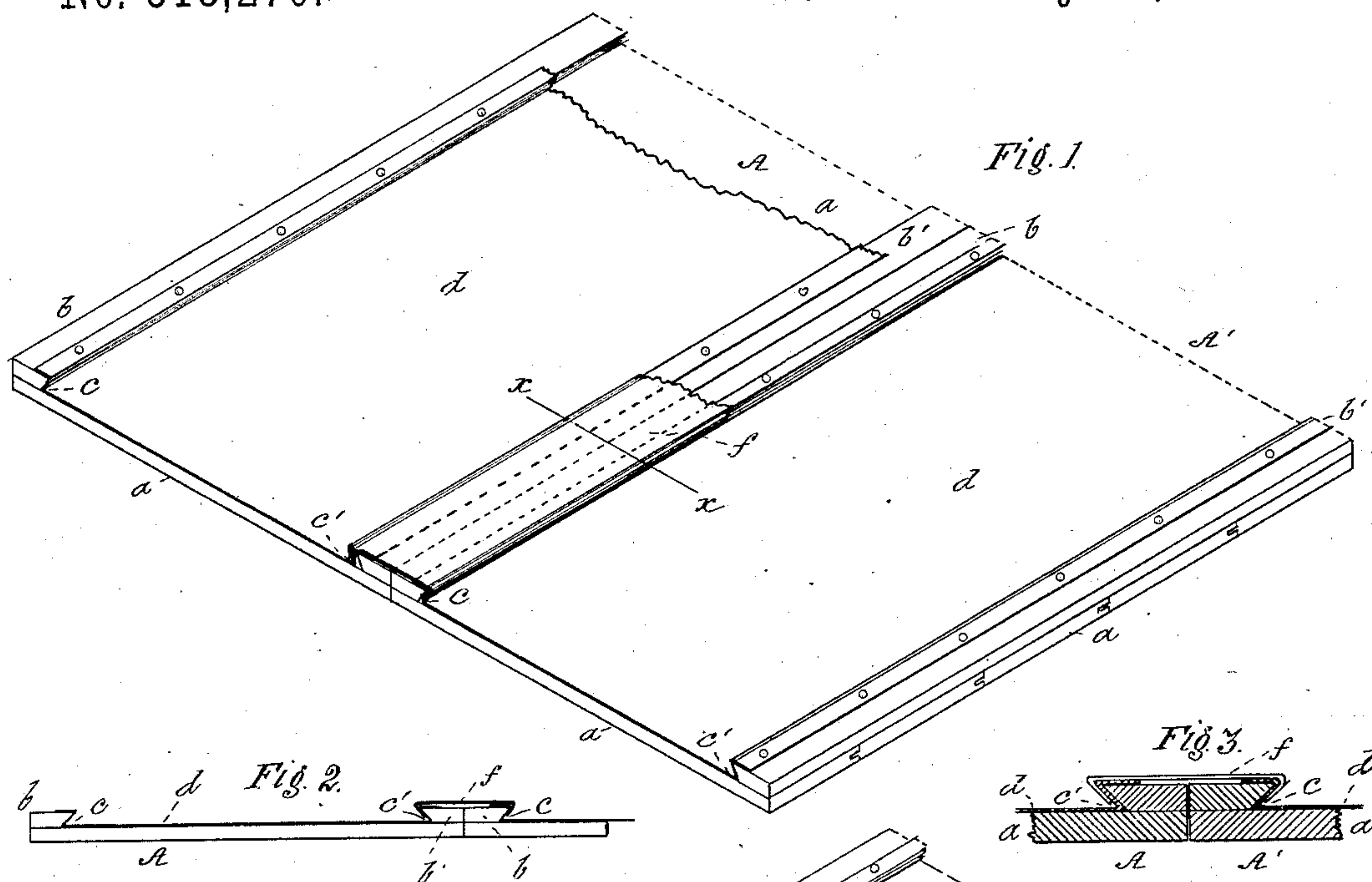
(No Model.)

E. LEE.

METAL COVERED ROOF FOR PORTABLE HOUSES.

No. 318,270.

Patented May 19, 1885.



Witnesses:
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UNITED STATES PATENT OFFICE.

EARL LEE, OF CORONA, NEW YORK.

METAL-COVERED ROOF FOR PORTABLE HOUSES.

SPECIFICATION forming part of Letters Patent No. 318,270, dated May 19, 1885.

Application filed February 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, EARL LEE, of Corona, in the county of Queens and State of New York, have invented a new and useful Improvement

5 in Metal-Covered Roofs for Portable Houses; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.
10 This invention relates to an improvement in the construction of detachable metal-covered roofs for portable houses; and the object of the invention is to construct the roof in such a manner that it shall be perfectly water-tight,
15 and also very strong and durable, and capable of being quickly placed in position, and removed whenever desired. This roof is chiefly intended for use on portable houses; but it may also be used for permanent or stationary
20 houses as well.

My improved roof is made in separate panels, which are constructed as hereinafter particularly described, and laid side by side upon the roof-frame in sufficient number to form the
25 roof, the upper end of each panel being secured in any suitable manner under the ridge-pole, and their lower ends secured by suitable means to the rafter-plates or the roof-frame. Each of said panels is composed of the following parts, namely: a transverse series of
30 boards joined together to form a backing of the width of the panel, and preferably tongued and grooved, two side strips fastened to this backing at each side thereof, and beveled on
35 their inner edges, so as to form recesses, and a sheet of galvanized iron or other suitable sheet metal laid over the upper surface of the panel and fastened at its sides to the strips just mentioned; and in connection with these
40 panels I employ a sheet-metal cap of proper width to cover adjoining side strips when the panels have been laid in position upon the roof-frame, which said cap is passed over the adjoining side strips, the side edges of said cap
45 being turned downward at an angle to fit snugly under the beveled edges of the side strips. By these means a perfectly water-tight roof is formed, which is readily put together and taken apart.

50 The invention consists in a roof-panel constructed as hereinafter particularly described, and in a roof composed of a series of such pan-

els connected together by means of a metal cap, the whole constructed and arranged as hereinafter particularly set forth and de- 55 scribed.

In the accompanying drawings, Figure 1 represents a perspective view of a roof constructed according to my invention. Fig. 2 is a view of the lower edge of the same; Fig. 3, 6c a sectional view of a joint between two panels, taken on the line $x x$, Fig. 1; Fig. 4, a perspective view of a portion of one of the panels detached, and without the metal cap above mentioned; and Figs. 5, 6, and 7 are details, 65 hereinafter described.

Similar letters of reference indicate the same parts in all the several figures.

A A' A² are the panels, which are each constructed as follows, namely: a is a backing 70 forming a base of the width of the panel, and preferably made of tongued and grooved boards laid transversely, as shown. $b b'$ are two side strips fastened one at each side of the backing and flush with the side edges of the 75 same. The inner edges of these strips are beveled, so as to form recesses $c c'$, running the entire length of the panel. d is a sheet of galvanized iron, or other suitable sheet metal, attached at each side to the strips $b b'$, covering 8c the upper surface of the panel and fitted into the recesses $c c'$. Only a part of the length of each panel is shown in the drawings, said panels ordinarily being of sufficient length to reach from the ridge to the eaves of the build- 85 ing. Provision is made, however, as hereinafter described, for joining two or more of the lengths when the building is large.

The panels thus constructed are laid side by side, as shown in Fig. 1, in a series of sufficient 9c number to form each side of the roof of a building, and the adjoining sides of each pair are covered by a metal cap, f , which extends from the ridge to the eaves. This cap f may be made of the same metal sheeting as the covering d , 95 and is of sufficient width to overlap the adjoining strips $b b'$ and edges of the sheeting d , and its side edges are turned downward at an angle to fit snugly into the recesses $c c'$. Thus constructed the roof is entirely covered with 1c metal sheeting, and is perfectly water-tight.

The means employed for joining two lengths of the panel longitudinally when the roof is of such size that a single length of panel would

be inconveniently large if long enough to reach from the ridge to the eaves are shown in Figs. 5, 6, and 7. In said figures, A represents the upper length of panel, or that which adjoins the ridge, and A² the length which is joined to the lower end of A. In the panel A the sheeting *d* is made to extend some distance below the wood, and is provided with two or more longitudinal slits, *m*, as shown in Fig. 5, and at a short distance from the upper end of the lower length, A², a strip of metal, *n*, is placed transversely across the panel over the sheeting, and fixed at its ends by nails driven through them or by soldering them to the sheeting. In placing the two lengths A and A² in position the overhanging portion of the sheeting on A is passed over the sheeting on A², and the flap *p* is passed under the strip *n*, as shown in Fig. 7, the lower end of the wooden portion of A being arranged to come against that on the upper end of A². If desired, the overhanging sheeting on A may have a number of slits, *m*, so as to form a series of flaps, *p*, which latter, in that case, are passed alternately over and under the strip *n*. I am aware of the United States Patent No. 188,012, to Henkle, in which a wooden cap is used to hold the edges of metal sheets to a beveled rib on a roof, and I do not claim such construction.

What I claim as my invention is—

1. A roof panel, constructed as described, with a backing, *a*, side strips, *b b'*, having their inner edges beveled to form recesses *c c'*, and a sheet-metal covering, *d*, laid over said backing and attached at its overlapping sides to the strip *b b'*, said panel being adapted, as described, to be used in connection with a metal cap, *f*, constructed, as described, to cover said strips *b b'* of adjoining panels and fit into the recesses *c c'*, as set forth.

2. A roof composed of a series of panels, A, A', each constructed with the backing *a*, strips *b b'*, having beveled edges to form recesses *c c'*, and sheet-metal covering *d*, said panels being laid side by side, and their adjoining side strips, *b b'*, covered by a metal cap, *f*, adapted to fit over said strips *b b'* and into the recesses *c c'*, as shown and described.

3. The combination of the panel A, provided with a portion of its metal covering *d* extending beyond its lower end, and slit at intervals to form flaps *p*, and the panel A², provided with the strip *n* to receive said flap or flaps, each of said panels constructed as shown and described, and the whole arranged as and for the purpose set forth.

EARL LEE.

Witnesses:

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