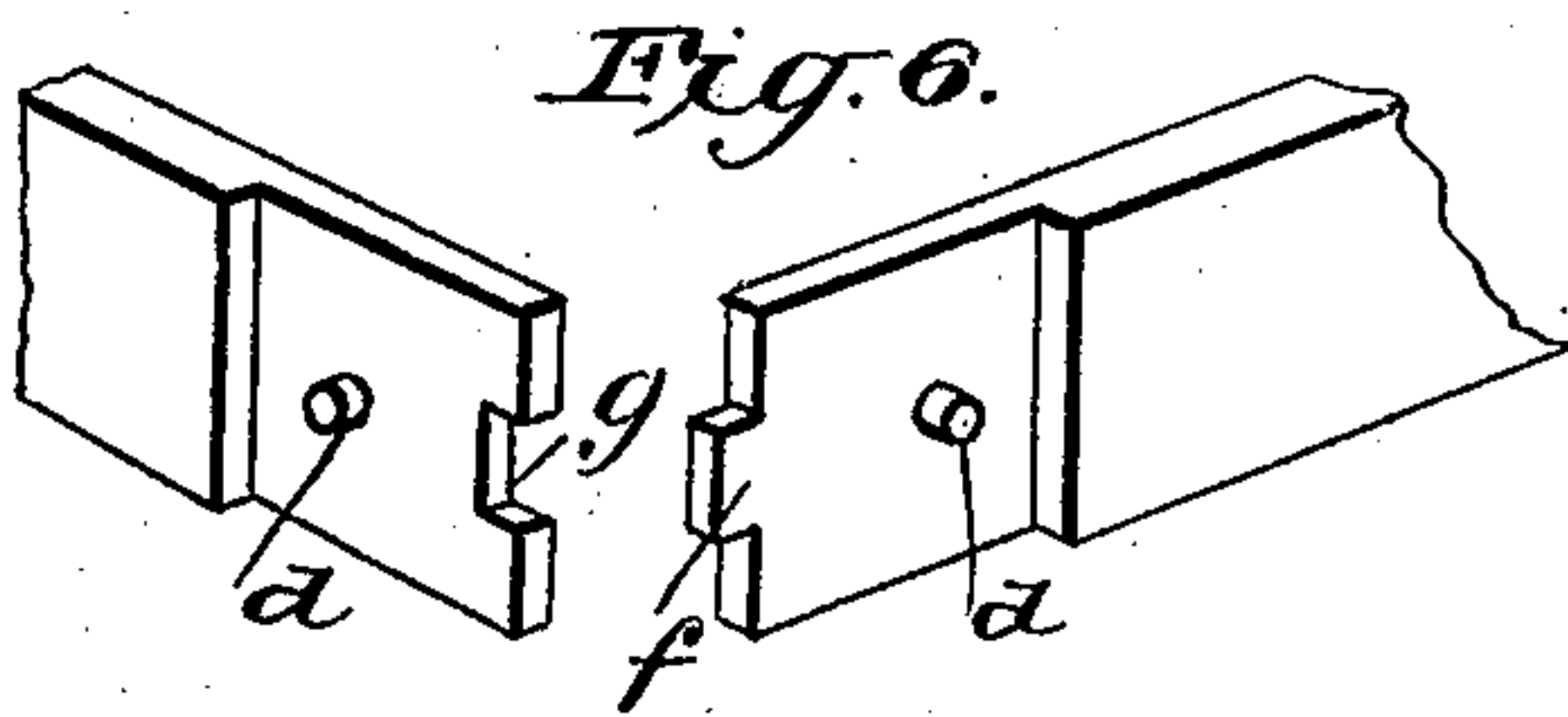
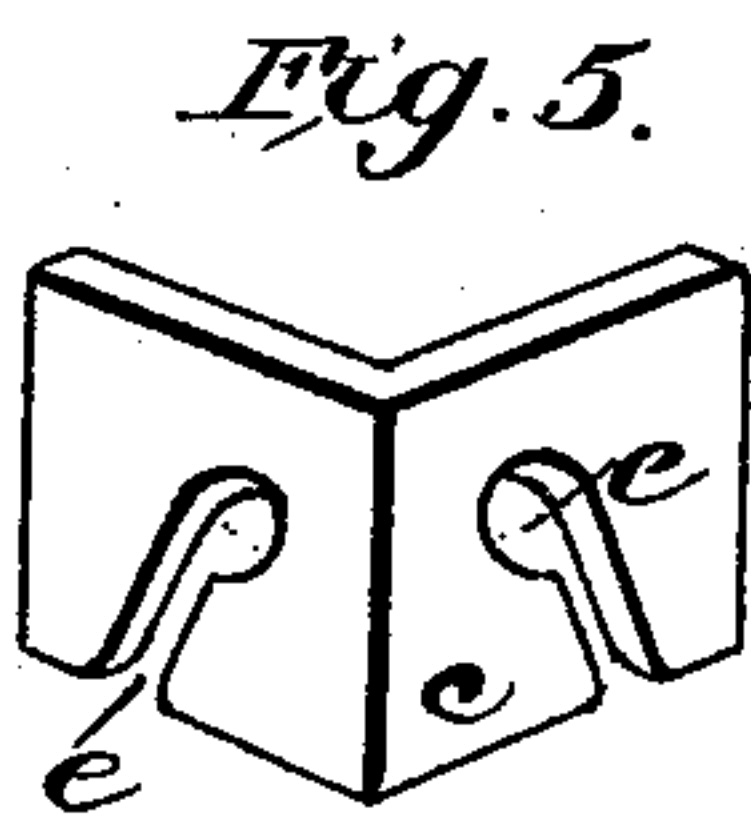
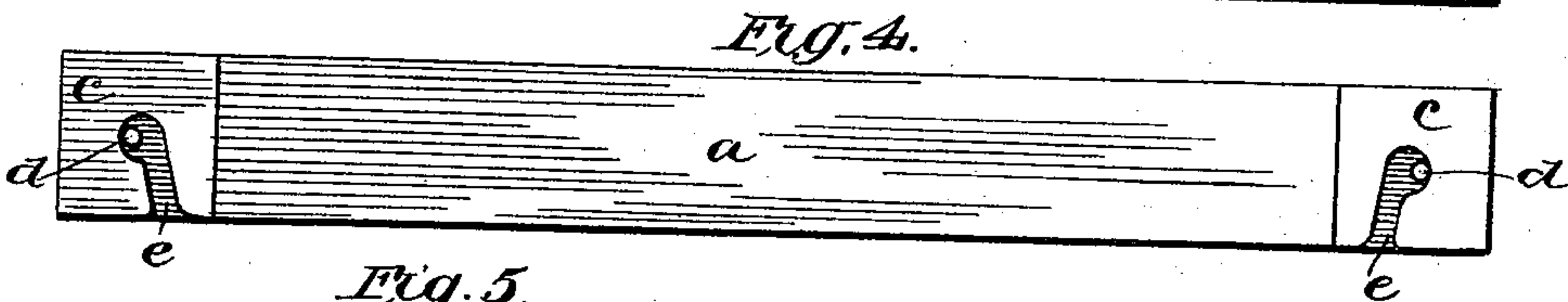
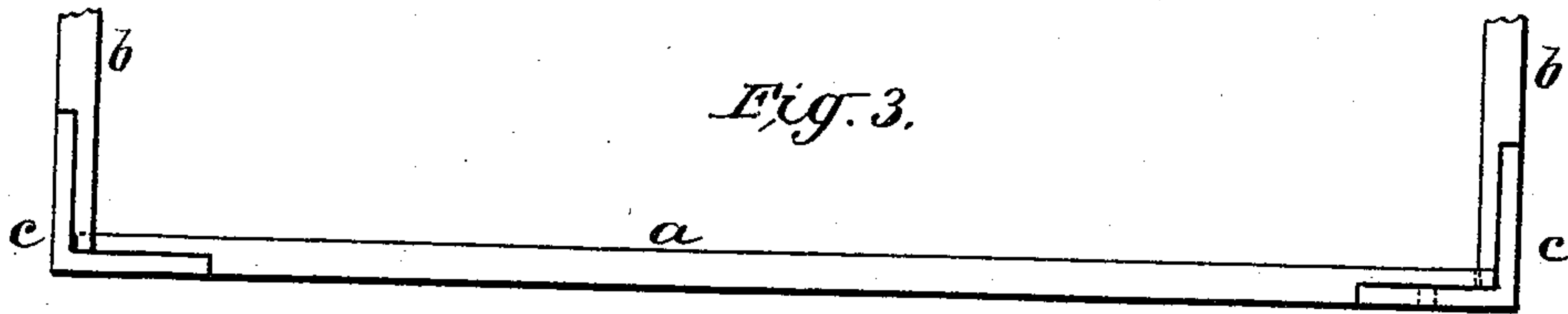
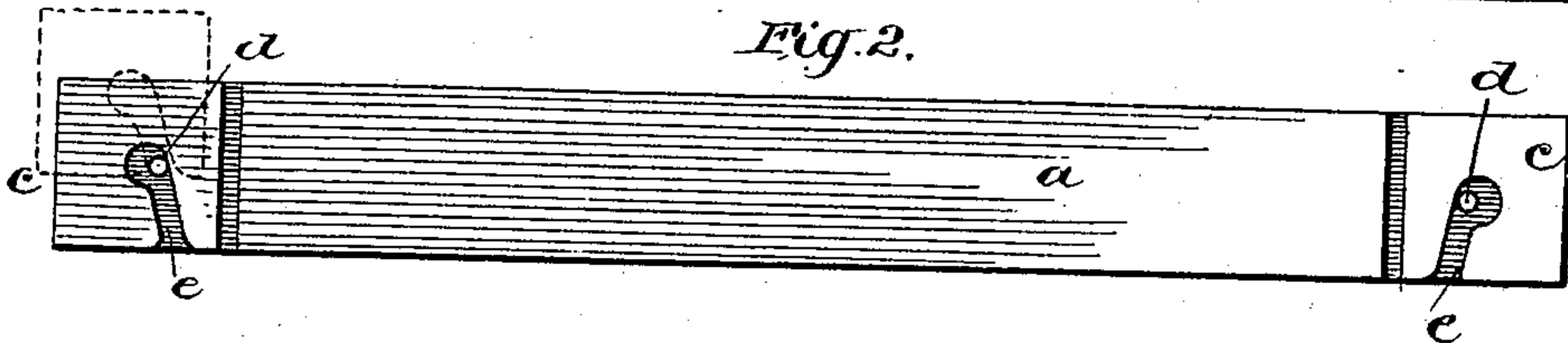
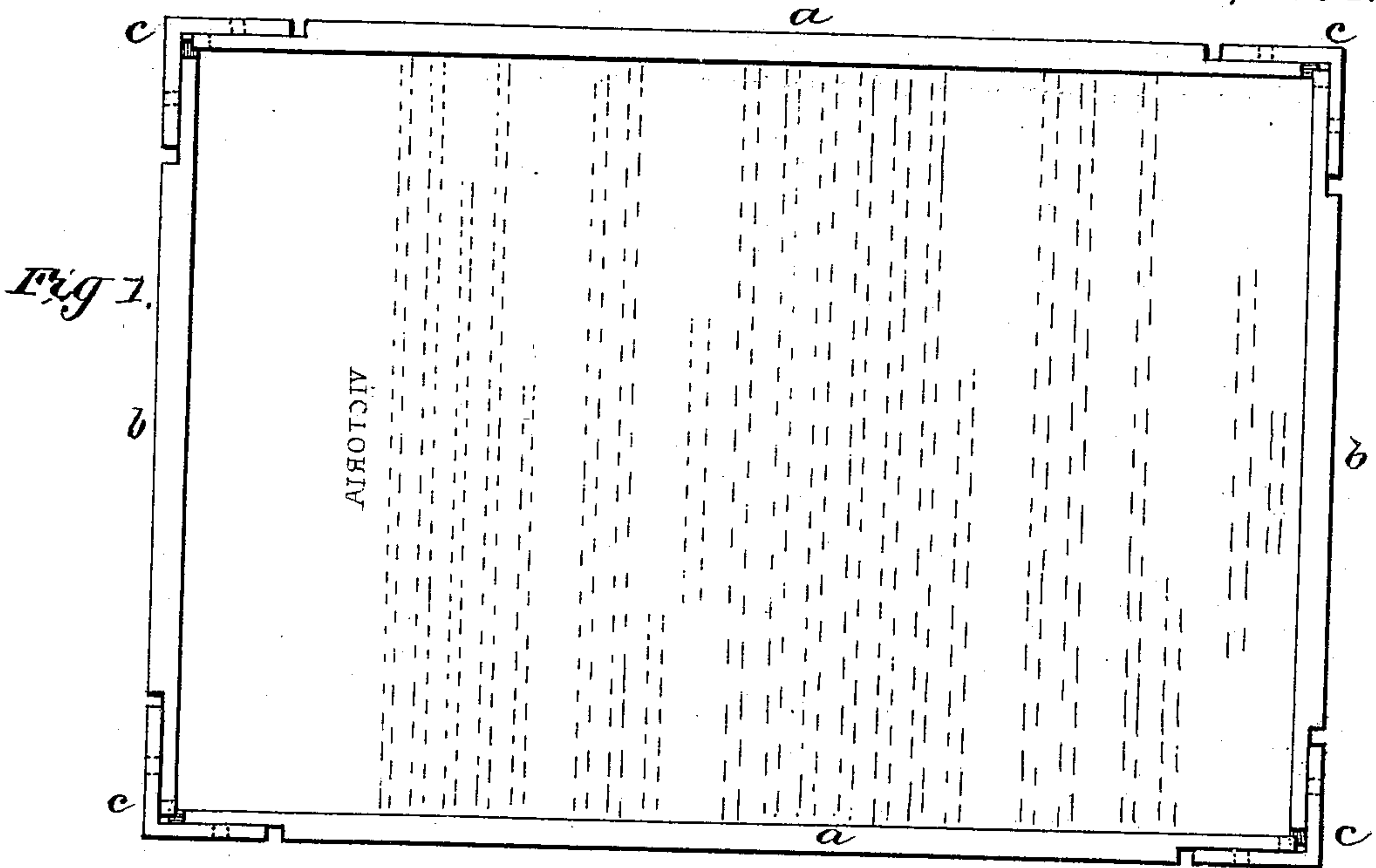


(No Model.)

J. VIERLING.
BINDER OR TIE-UP FOR PAGES OF TYPE.

No. 512,924.

Patented Jan. 16, 1894.



WITNESSES:
Fred G. Dieterich
Amos M. Nash

INVENTOR
Joseph Vierling
BY *Munn & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH VIERLING, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ADOLPH ZINN, OF SAME PLACE.

BINDER OR TIE-UP FOR PAGES OF TYPE.

SPECIFICATION forming part of Letters Patent No. 512,924, dated January 16, 1894.

Application filed September 25, 1893. Serial No. 486,479. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH VIERLING, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented an Improved Binder or Tie-Up for Pages of Type, of which the following is a specification.

It is the old time, and still common, practice in printing establishments to tie a page of type with a cord, or string, preparatory to imposing it. In other words, the cord, or string, serves as a temporary binder, holding the page securely, thus preventing squabbling or pieing until secured in the chase.

My invention is an improvement in the class of printers' type lock ups or "tie ups" which serve as temporary binders for holding a page of type securely and thus preventing squabbling or pieing until secured in the chase.

The construction of my improved type binder or "tie up" is as hereinafter set forth.

In the accompanying drawings—Figure 1 is a plan view of my binder, or tie up, showing the parts adjusted as when it is secured around a page of type. Fig. 2 is a side view of the same. Fig. 3 is a plan view of a portion of the binder, showing its parts adjusted as when it has been locked in a chase. Fig. 4 is a side view of the same. Fig. 5 is a perspective view of one of the locking devices. Fig. 6 is a perspective view of interlocking ends of bars composing the frame of the binder.

The frame, or binder, (Fig. 1,) is composed of four straight bars *a*, *a*, and *b*, *b*, and four corner locking devices, *c*. The side bars, *a*, *a*, are the longer, but otherwise similar to the end bars, *b*, *b*. The ends of each bar are scarfed, or rabbeted, on the outer side, (Figs. 1 and 6,) to the depth of the thickness of the right-angled locking pieces, *c*, so that when the latter are applied, as shown in Figs. 1 and 2, their outer sides will be flush with the corresponding sides of the bars.

Each locking device, *c*, is connected with and secured to the adjacent ends of the two bars, *a*, *b*, by means of a pin and slot. That is to say, a pin, or stud, *d*, projects from the rabbeted portion of each bar, and each wing

of the locking device, *c*, is provided with an open slot, *e*, which opens at the lower edge of the bar, and is inclined at a slight angle toward the corner, or angle, of the device. The upper end of the slot is also elongated, to allow the pin, or stud, requisite play, when the frame is secured in the chase, as hereinafter described.

One end of each side bar *a* and head bar *b* is provided with a tenon or tongue *f*, and its other end with a corresponding notch or open slot *g*, so that when the bars are put together, as shown in Fig. 1, the tongues will enter the notches, and thus hold the several bars from movement, or displacement, vertically.

In using the binder, the head and side bars are placed on the galley and serve as size to make up a page. Their ends are interlocked by engagement of the tongues *f*, and notches *g*, (as will be readily understood) and then the locking devices *c*, are applied as shown in Fig. 2, by pressing them vertically downward, so that the pins *d*, enter the slots *e*. In this operation, the inclination of the slots produces a wedging action, tending to draw the bars closer to each other and to the page of type. That is to say, the further the pins *d*, enter the slots *e*, the more the bars are drawn inward, and the size of the frame, or binder, is contracted correspondingly. By this operation the binder is caused to clamp the page so firmly that the latter may be handled freely without danger of pieing or squabbling.

The binder will of course be made of different sizes, corresponding to the different sizes of pages it is required to apply it to. When such binder, with the type page inclosed by it, is placed in the chase, it is quoined, or locked by screws, the several bars *a*, *b*, in that case yielding *i. e.* moving inward, so as to clamp the type with sufficient force to produce a rigid form ready for the press. The locking devices, *c*, also move inwardly so as to close the spaces between their ends and the shoulders of the rabbets, as shown in Fig. 4. It will be apparent that the enlargements of the slots, *e*, at the upper end permits the pins *d*, from hindering such movement of the locking devices.

The strength, durability, and security of

the binder, or "tie up," render it an important aid in imposing, especially so for book work, pages of rule and figure work, also pages ornamented by brass rules or borders of any kind. It makes a firm "tie up" and yet permits corrections to be made. It prevents the slipping of punctuation marks at the ends of the lines, and also of the leads or rules in the body of the page. It facilitates the execution of difficult justification in original commercial work, and enables proof to be taken as accurately as press work.

The binder may be used in electrotyping, in which case the bars will be made type-high to adapt them to take the place of a guard rule.

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

20 1. The improved type binder or "tie up," composed of four straight bars having rabbeted ends, provided with lateral pins and engaging tongues, and notched as specified, and

the right-angular locking pieces having inclined slots, and adapted to fit upon such rabbeted ends of the bars and lie flush with their outer sides, as shown and described. 25

2. The improved type binder, or "tie up," composed of four straight bars, having rabbeted ends and pins projecting laterally from the rabbeted portions, and the rectangular locking devices, having open slots which incline from the bottom outward or toward the angle of said devices, as and for the purpose described. 30

3. The improved type binder, or "tie up," composed of four straight bars, having rabbeted ends and pins projecting laterally from the rabbeted portions, and the rectangular locking devices having open slots which are enlarged in the upper portion and inclined outward, as shown and described. 35 40

JOS. VIERLING.

Witnesses:

JACOB SCHOENBERGER,
OSCAR J. STEINER.