

No. 611,637.

Patented Oct. 4, 1898.

A. J. LAUER.
BOX FASTENING DEVICE.

(Application filed Nov. 8, 1897.)

(No Model.)

Fig. 1.

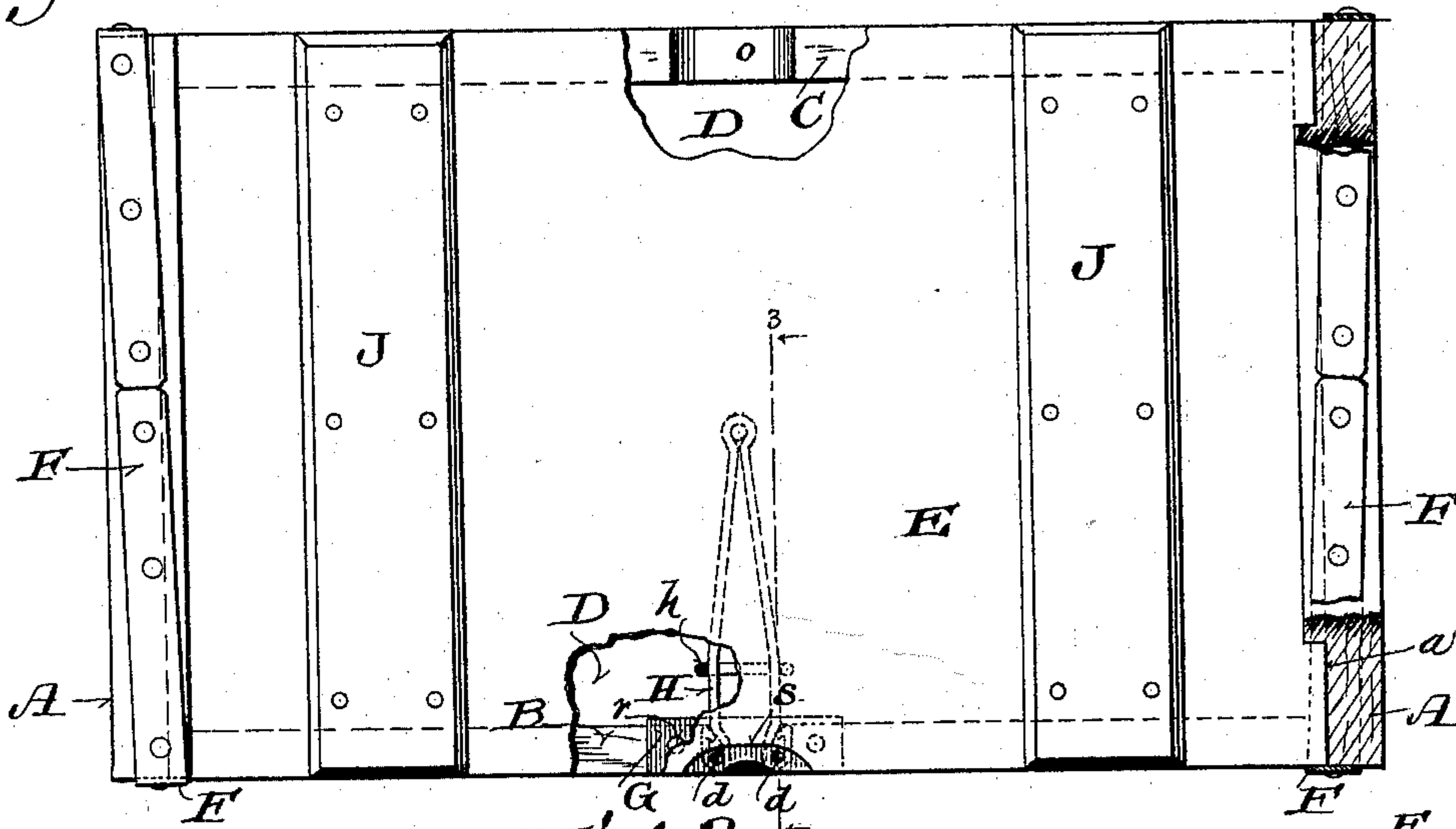


Fig. 2.

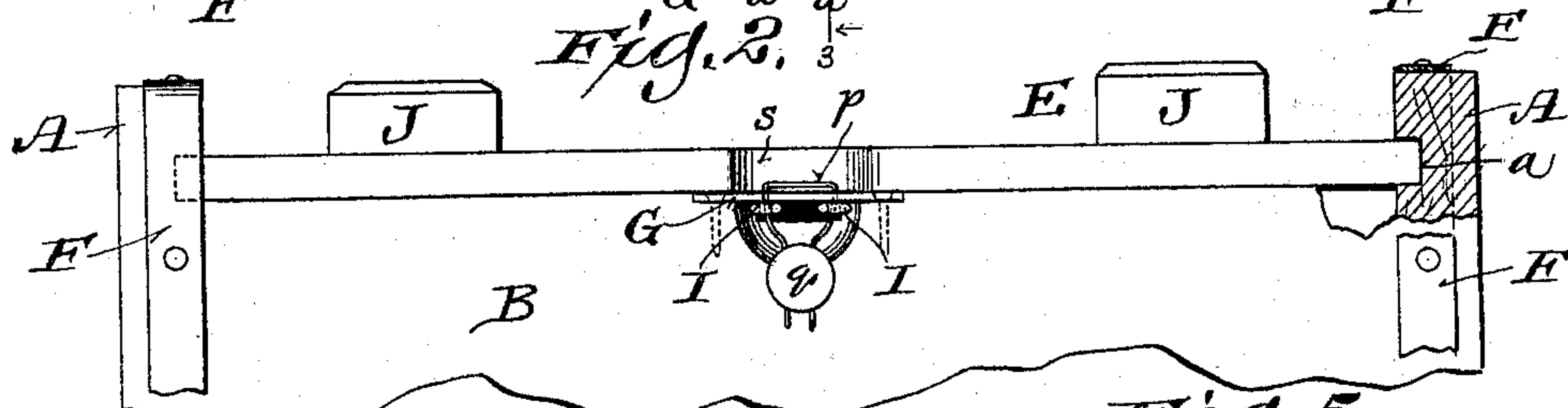


Fig. 3.

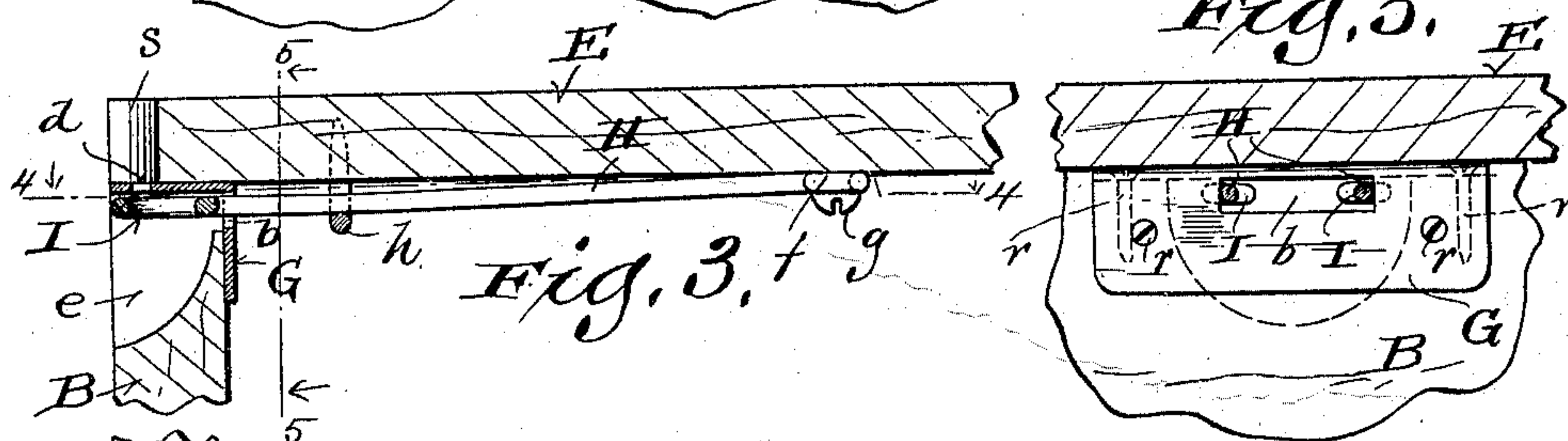


Fig. 4.

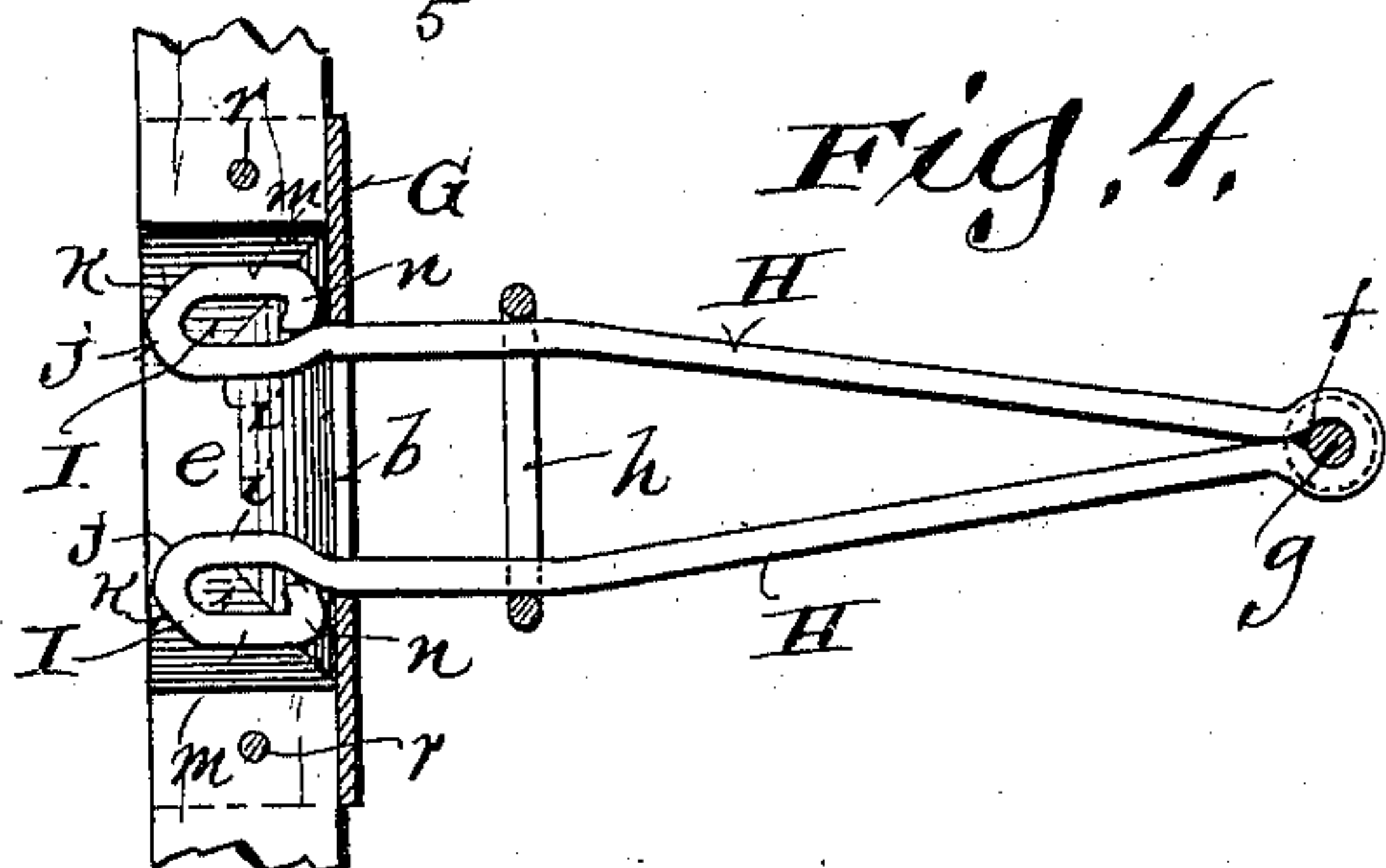


Fig. 5.

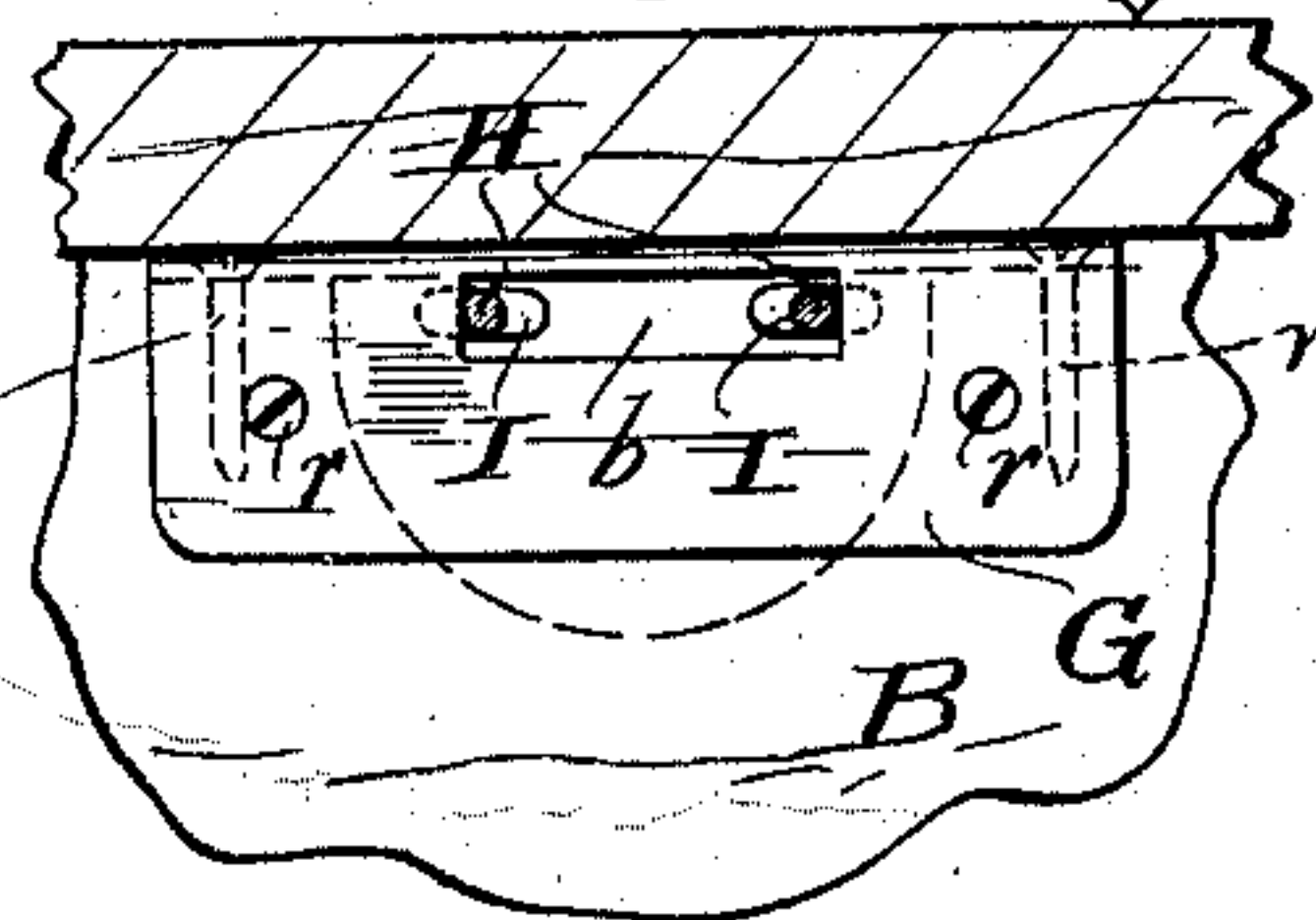
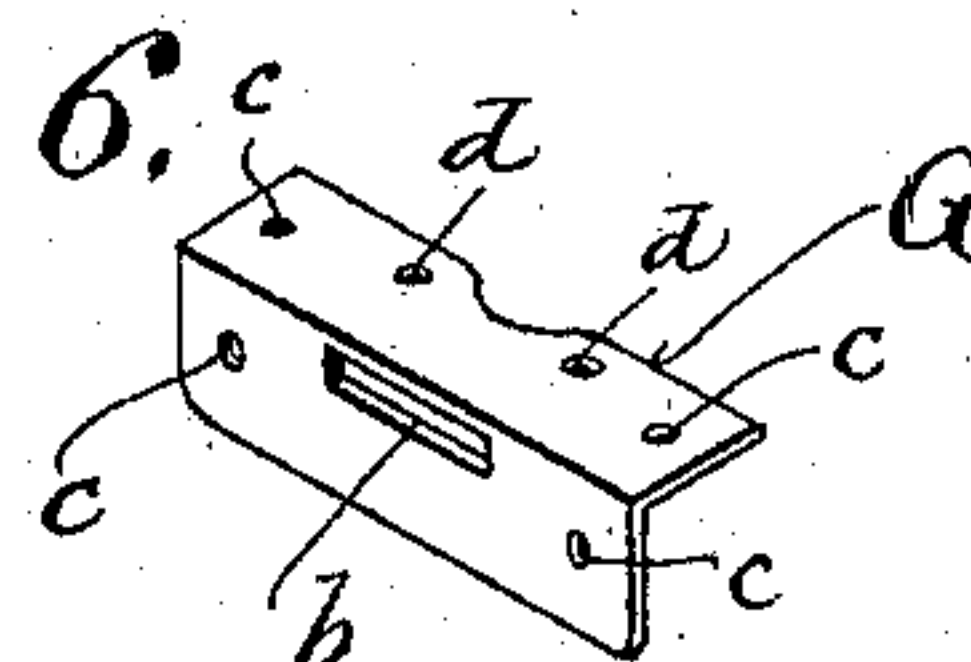


Fig. 6.



Witnesses:
Geo W. Young.
J. R. Nottingham

Inventor:
Anton J. Lauer,
By H. G. Underwood
Attorney

UNITED STATES PATENT OFFICE.

ANTON J. LAUER, OF MILWAUKEE, WISCONSIN.

BOX-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 611,637, dated October 4, 1898.

Application filed November 8, 1897. Serial No. 657,800. (No model.)

To all whom it may concern:

Be it known that I, ANTON J. LAUER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Box-Fastening Devices; and I do hereby declare that the following is a full, clear, and exact description thereof.

My present invention has especial reference to that class of box-fastening devices which are designed to hold securely in place the movable covers of boxes and cases used in the transportation of bottled goods—such as beer, wine, mineral waters, and other goods—and which boxes and cases, with their covers, are used over and over again; and it consists in certain peculiarities of construction and combination of parts, as will be fully set forth hereinafter and subsequently described.

In the drawings, Figure 1 is a plan view of a box and cover embodying my said invention, the cover being shown as partly broken away to better illustrate certain details of construction. Fig. 2 is a detail front view, also partly broken away. Fig. 3 is a detail sectional view on the line 3 3 of Fig. 1, but drawn to an enlarged scale. Figs. 4 and 5 are detail sectional views on the lines 4 4 and 5 5, respectively, of Fig. 3. Fig. 6 is a detail perspective view of the slotted latch plate or keeper.

Referring to the drawings, A A represent the ends, B the front wall, C the rear wall, and D the bottom, of a box or case to which my present invention is applied. In its preferred form the said ends A A rise above the plane of the tops of the front and rear walls B C and are formed with guides or ways (preferably the grooves *a*) to receive the ends of the sliding cover E, the base-line of said grooves *a* being even with the top line of the said front and rear walls B C, so that the cover will form a snug fit therewith when in place.

F F represent strengthening strap-iron bands of ordinary construction and which are fastened around each end of the box, as shown, and instead of being placed squarely around they are arranged on oblique lines, as best shown in Fig. 1, so that said bands F F at the rear upper ends of the box will be

outside and clear of the rear ends of the grooves *a a*, while at the front upper ends the said bands will extend in front of and close the front ends of said grooves, as best shown in Fig. 2. Thus the said strap-iron bands F will not interfere with slipping the ends of the removable cover E within the said grooves *a a* in applying the cover to the box, but will serve as stops to prevent said cover from moving forward beyond or over the line of the front wall of the box, thus insuring that said cover may always be pushed to the proper place for receiving the same in closing the box without especial care or attention on the part of the operator.

G is the hereinbefore-named slotted latch plate or keeper, (best shown in Fig. 6,) consisting of a right-angled metallic plate having a longitudinal slot *b* formed in the lower or vertical part thereof, with screw or nail holes *c c* in that part and also in the upper or horizontal part thereof adjacent to each end of said plate, (to receive screws or nails *r r*, passed therethrough into the front wall B,) and in addition other holes *d d* through the upper horizontal part about in line with the ends of the slot *b* in the lower part. The front wall B of the box is cut away at its upper central part, and the said plate G is secured over the opening thus made, said opening being completely through the said front wall of the box at a point opposite the slot *b* of the plate G, while below this point the wood of the said front wall B is merely hollowed or rounded out, as shown at *e*.

H H represent the two arms of a spring-latch, united at their inner ends, so as to form an eye *f*, which is secured to the under side of the cover E, as by screw *g*. Each arm H forms an ogee, practically, in form, the two arms converging toward the inner end thereof, and at the point of widest separation of said ogee-shaped arms H H there is an embracing staple *h*, whose ends are driven into the under side of said cover E. The free outer ends of these arms H H are best shown in Fig. 4 and first curve inward toward each other, as shown at *i i*, thence outward and forward, as at *j j*, thence obliquely backward, as at *k k*, thence almost straight backward, as at *m m*, and finally are projected inward and forward, as at *n n*, almost touching the

inwardly-curved forward ends of the arms H H first described, forming the peculiar loops I I shown in Fig. 4, which extend (when the cover is pushed forward to place and the box thereby closed) over the hollowed-out part *e* of the front wall B, said ends or loops I I having first passed through the described slot *b* in the plate G, in which position the oblique ends *n n* of the loops I I will prevent the cover from being withdrawn until said loops I I are pinched or pressed toward each other, the hollowed-out part *e* affording the necessary space for the fingers of the operator for this purpose. To enable the described spring-latch to pass the rear wall C of the box when the cover is to be applied, the said wall is centrally recessed at its top edge, as shown at *o* in Fig. 1.

J J are transverse cleats secured to the top of the cover E and which should rise to the level of the tops of the end walls A A of the box to facilitate piling one box evenly upon another.

When the cover is in place, the same can be secured by any ordinary wire-and-lead seal, as shown best in Fig. 2. The wire *p* of the seal is passed through the holes *d d* of the upper part of the plate G, and thence down through the loops I I of the spring-latch, and secured by the soft or compressible metal part *q* of the seal in the ordinary way. If desired, there need only be one hole *d* through the plate G, as the lock will be complete if the wire of the seal passes through that and through either or both the loops I I; but the construction shown is the preferable one. The front edge of the cover E is preferably centrally cut away, as shown at *s*, to facilitate the operation of the said seal *p q*. The cover will remain fastened by the spring action of the arms H H of the spring-latch without the use of the seal, but the latter is desirable when the box or case is to be shipped away to guard against any unlawful interference with its contents.

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

1. In a box-fastening device, the combination with a box or case having end walls projecting up above the plane of the rest of said box or case and formed with transverse inner grooves or ways and having openings or recesses in the tops of the front and rear walls, in line with each other; of a movable cover adapted to slide within said grooves or ways; a slotted latch-plate secured over the front-wall opening or recess; a spring-latch secured to the box-cover and adapted for engagement with the slot in said latch-plate; and strengthening straps or bands around the ends of the box or case, arranged obliquely so that said bands shall form stops at the front ends of said grooves or ways, and leave free or open the rear ends of said grooves or ways, substantially as set forth.

2. In a box-fastening device, the combina-

tion with a box or case having transverse inner and upper grooves or ways at each end thereof, suitable stops at the front ends only of said grooves, or ways, and openings or recesses in the tops of the front and rear walls, in line with each other; of a movable cover adapted to slide within said grooves or ways; a slotted latch-plate secured over the front-wall opening or recess, a spring-latch formed of inwardly and rearwardly converging arms terminating at the inner end in a loop or eye secured to the under side of the box-cover, and having the outer or forward end of each arm bent to terminate in a loop, and adapted to be pressed toward each other against the spring of the arms and pass through the slot in said latch-plate and engage with the end walls of said slot, when the cover is pushed to place against the stops at the front ends of said grooves or ways, the extreme ends of said front loops of the arms being bent inward and forward, to prevent passage backward through the slot in the latch-plate when the said arms of the spring-latch are in their normal expanded condition, substantially as set forth.

3. In a box-fastening device, the combination with a box or case having transverse inner and upper grooves or ways at each end thereof, suitable stops at the front ends only of said grooves or ways, and openings or recesses in the tops of the front and rear walls, in line with each other; of a movable cover adapted to slide within said grooves or ways; an angular latch-plate secured over the front-wall opening or recess, and having a longitudinal slot formed in its lower or vertical part, and an opening or openings through its upper or horizontal part; a spring-latch comprising two converging spring-arms secured at their inner end to the under side of the box-cover, and each arm terminating at its front or outer end in a loop, and adapted to pass through the slot in the latch-plate when the cover is closed; and a wire seal comprising a wire adapted to be passed through the opening or openings in the latch-plate and through the loop or loops of the outer ends of the arms of the spring-latch, and then through the soft or compressible metal portion of said seal, substantially as set forth.

4. In a box-fastening device, the combination with a box or case having both of its end walls projected above the side walls thereof and the projections provided with transverse inner grooves or ways, of suitable stops at the front ends of the grooves or ways, a sliding cover engageable with said grooves or ways, and a latch plate or keeper, and a spring-latch, one of said parts being secured to the end wall of the box or case at the end opposite to that having said stops and the other of said parts being secured to said sliding cover, whereby the latter, when the box or case is closed thereby, may be secured in place.

5. In a box-fastening device, the combina-

tion with a box or case having its end walls projected above the side walls thereof and the projections provided with transverse inner grooves or ways, of strengthening-bands arranged to have portions thereof cross the front ends of said grooves or ways, a sliding cover engageable with the aforesaid grooves or ways, and a latch-and-keeper mechanism for securing the cover in place.

10 6. In a box-fastening device, the combination with a box or case having its end walls projected above the side walls thereof and the projections provided with transverse inner grooves or ways, of a sliding cover engageable

with the grooves or ways, a keeper in connection with a side wall of the box or case, and a spring-latch on the under side of the cover engageable with the keeper, latch clearance being had in both side walls of said box or case.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

ANTON J. LAUER.

Witnesses:

N. E. OLIPHANT,
B. C. ROLOFF.