

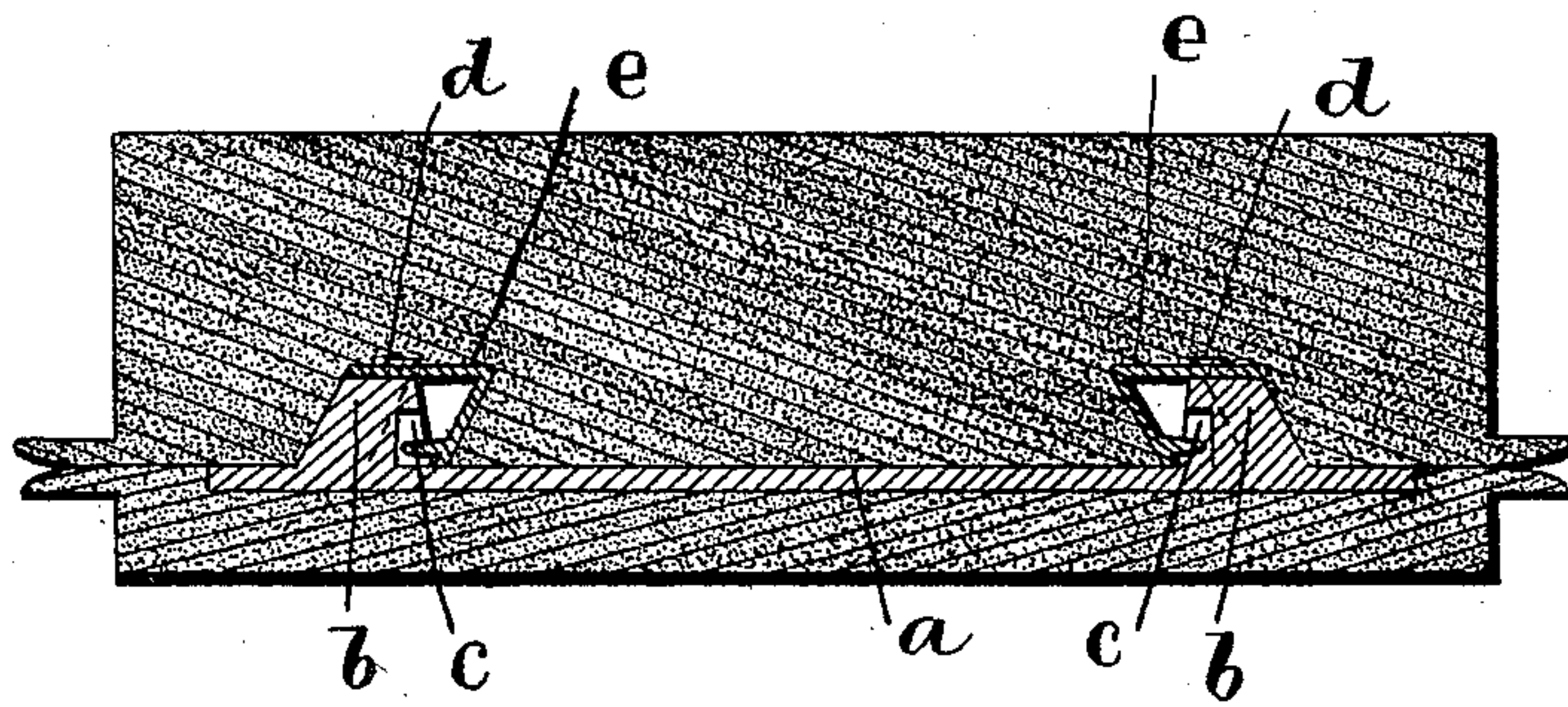
(No Model.)

E. KUHN.  
PATTERN FOR CASTING DOVETAILS.

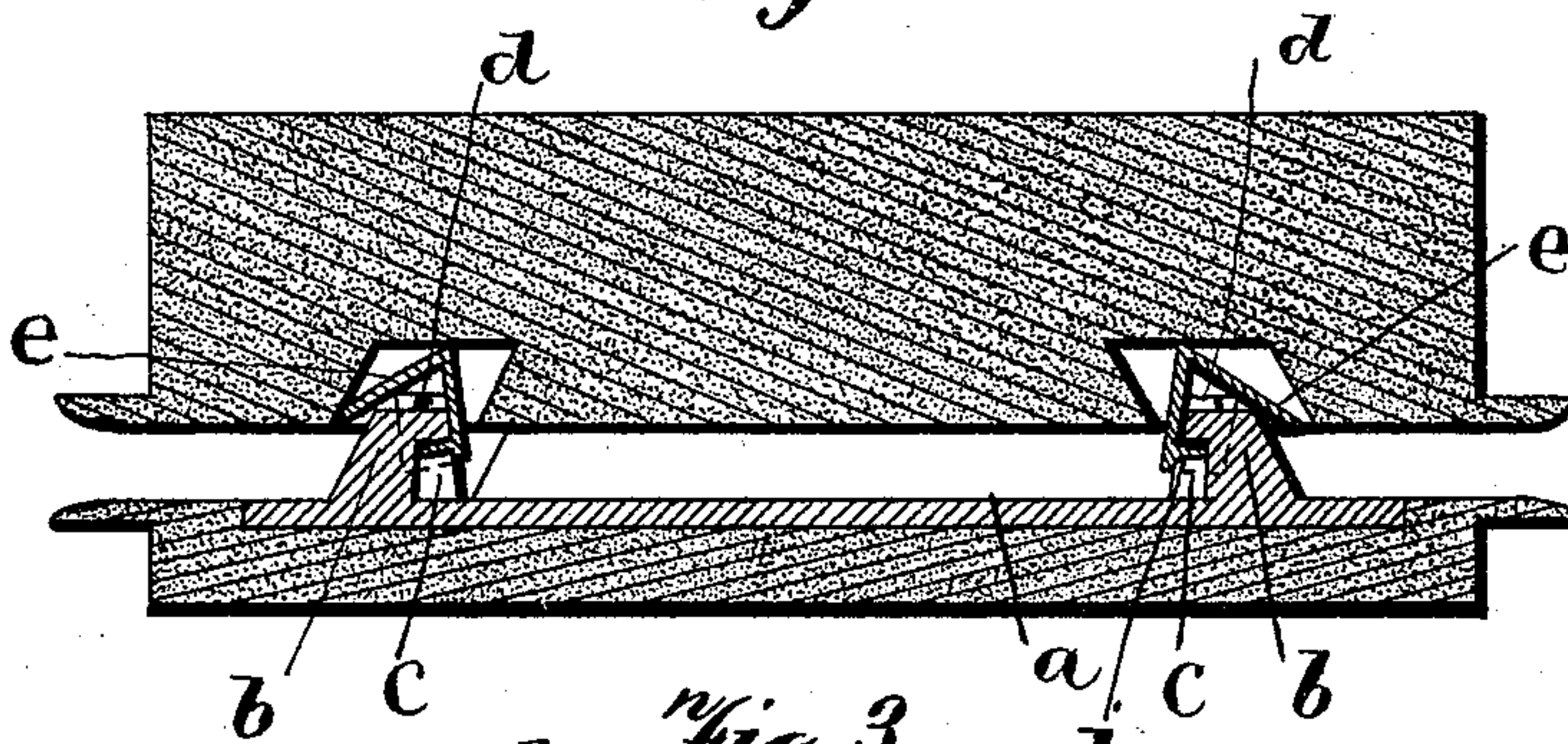
No. 585,039.

Patented June 22, 1897.

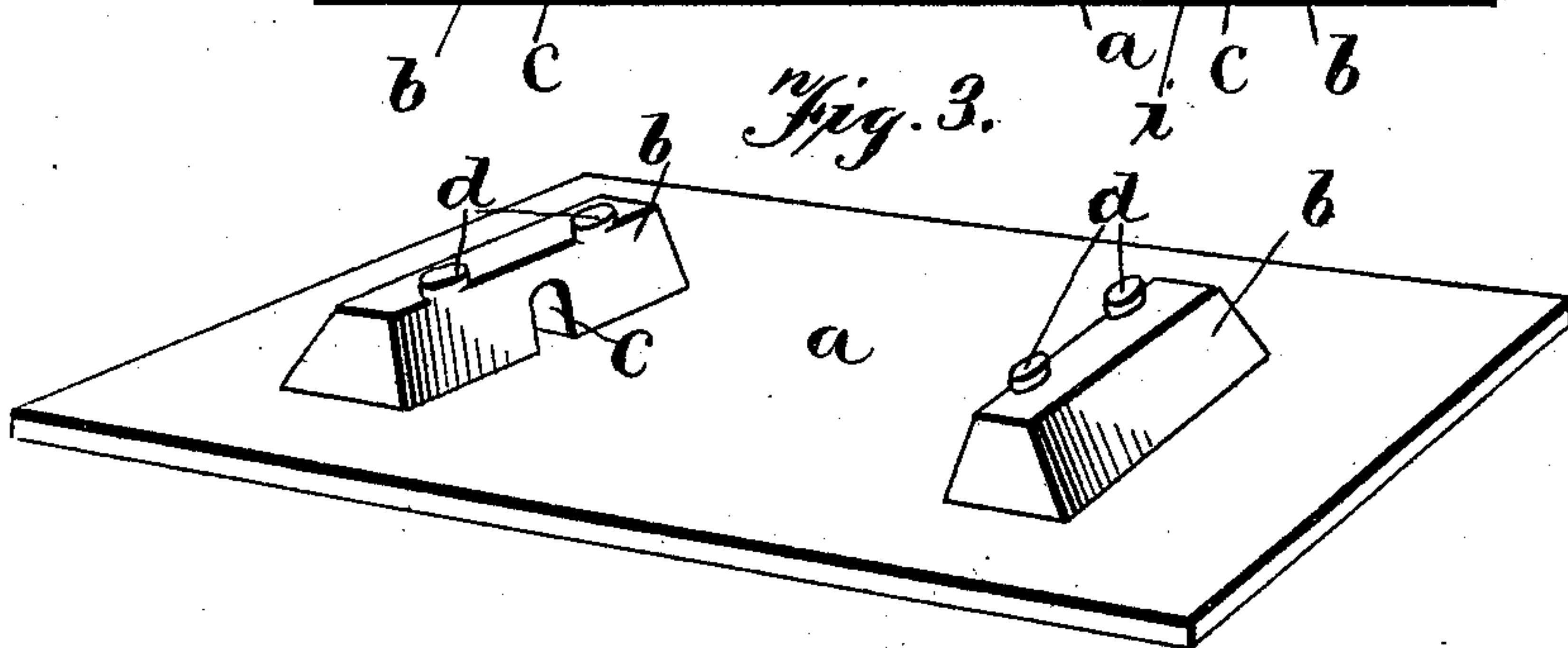
*Fig. 1.*



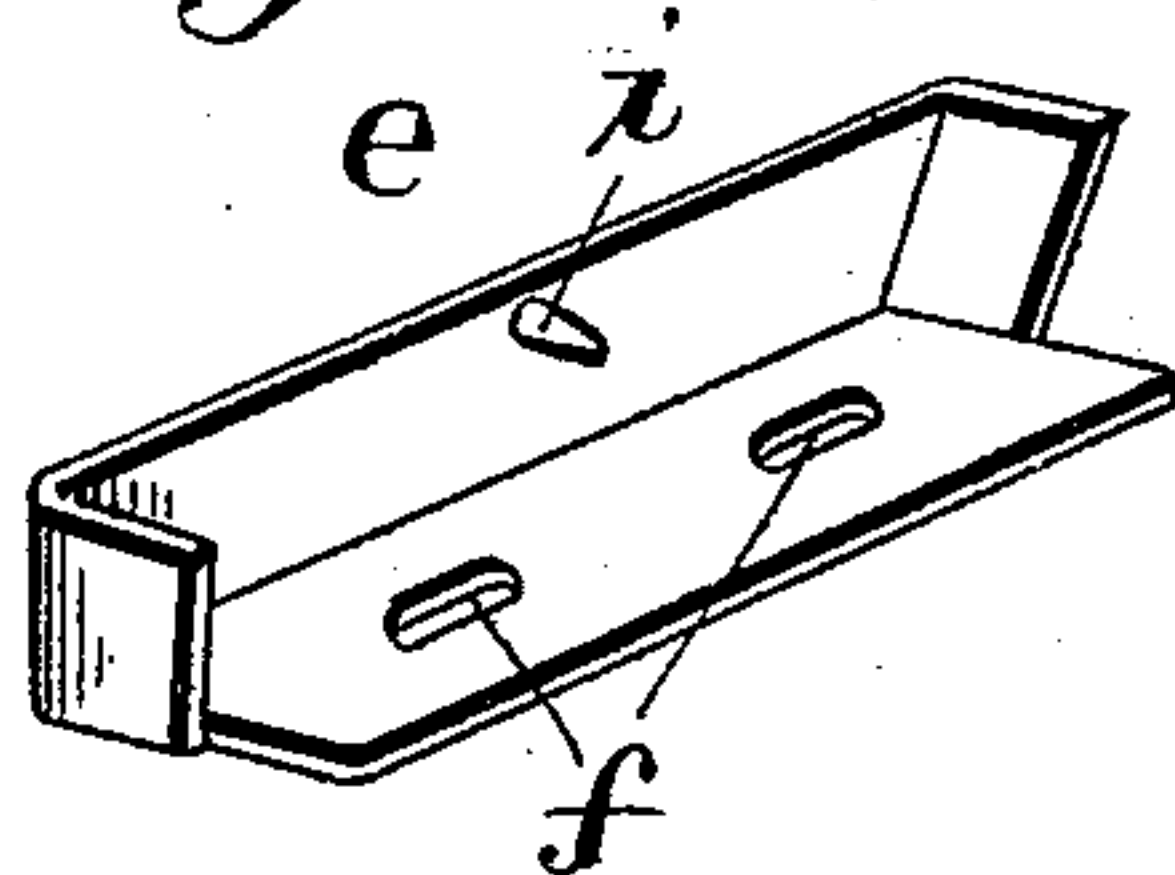
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

EDMUND KUHN, OF NEW ALBANY, INDIANA.

## PATTERN FOR CASTING DOVETAILS.

SPECIFICATION forming part of Letters Patent No. 585,039, dated June 22, 1897.

Application filed March 17, 1897. Serial No. 628,015. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND KUHN, of New Albany, in the county of Floyd and State of Indiana, have invented certain new and useful Improvements in Patterns for Casting Dovetails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in patterns for casting dovetails; and it consists in the particular construction and combination of parts hereinafter fully described, and particularly pointed out in the claims.

The object of my invention is to so construct the parts of the pattern that a perfect mold can be made by preventing the breaking of the sand when the cope of the flask is being removed.

In the accompanying drawings, Figure 1 is a vertical section showing the parts of the pattern in position in the flask and the sand packed around them. Fig. 2 is a similar view showing the cope of the flask in the act of being withdrawn and the position assumed by the movable parts of the pattern. Fig. 3 is a detached perspective view of the pattern with the caps removed. Fig. 4 is an interior perspective view of one of the caps removed.

In the drawings, *a* indicates that part of the pattern which forms the bottom or other part of the stove upon which it is desired to cast the dovetail, and *b* projections. These projections are considerably inclined at their outer sides, as shown, and preferably slightly inclined at their inner sides. The inner sides of the projections *b* are provided with central openings *c* and at the inner edge of their tops with the pins *d*.

Caps *e* are provided, which are placed over the projections, as shown in Fig. 1, and the upper walls or tops of these caps are provided with openings *f*, which receive the pins *d* of the projections, and these caps are provided

at the lower edges of their side walls with inwardly-extending lugs *z*, which enter the openings *c*, as shown in Fig. 1.

In operation the caps are placed in position and the sand packed around them, as shown in Fig. 1, the pins *d* serving to hold the caps in position as the sand is being packed. When the cope is removed, as illustrated in Fig. 2, the caps are lifted, carrying them out of engagement with the pins *d* of the projections, the openings *c* in the projections being longer than the pins *d* to permit this action. The lugs *z*, engaging the upper walls of the openings *c*, cause the caps to turn or tip, as illustrated in Fig. 2, which throw the caps out of the inclines formed thereby in the sand, and the cope of the flask is removed without any injury whatever to the inclined cavities formed by the caps and projections, the caps turning so easily as to prevent any breaking of the sand.

From the above description it will be seen that the lugs *z*, coacting with the openings *c* in the projections, cause the caps to be automatically withdrawn from the sand, and so easily as to prevent any injury to the mold.

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

1. A dovetail-pattern consisting of the base having a projection, a cap placed over the projection and forming an inclined inner side therefor, the projection having at its inner side a transversely-extending opening provided with an upper wall, and the cap having a horizontal inwardly-projecting lug passing loosely within said opening and adapted to engage said upper wall when the cap is lifted and cause the same to tilt for the purpose described, substantially as shown.

2. A dovetail-pattern consisting of the base having a projection, a cap placed over the projection and forming an inclined inner side therefor, the projection and cap having respectively pins and openings at their upper side, the projection having at its inner side a transversely-extending opening provided

with an upper wall, and the cap provided with an inwardly-projecting lug entering loosely said opening, substantially as described.

3. A dovetail-pattern consisting of a base  
5 having a projection provided with pins at its upper side, a detachable cap placed over said projection and forming an inclined inner side therefor, the cap having openings in its upper side to receive said pins, the inner side of the  
10 projection having an opening of a length

greater than the length of said pins, and the cap having an inwardly-extending lug entering loosely said opening and operating as described.

In testimony whereof I affix my signature 15  
in presence of two witnesses.

EDMUND KUHN.

Witnesses:

ED. G. PLATT,

JAMES H. WATKIN.