

No. 860,347.

PATENTED JULY 16, 1907.

H. H. BLAKE & H. E. DENISON.

WEDGE.

APPLICATION FILED OCT. 6, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

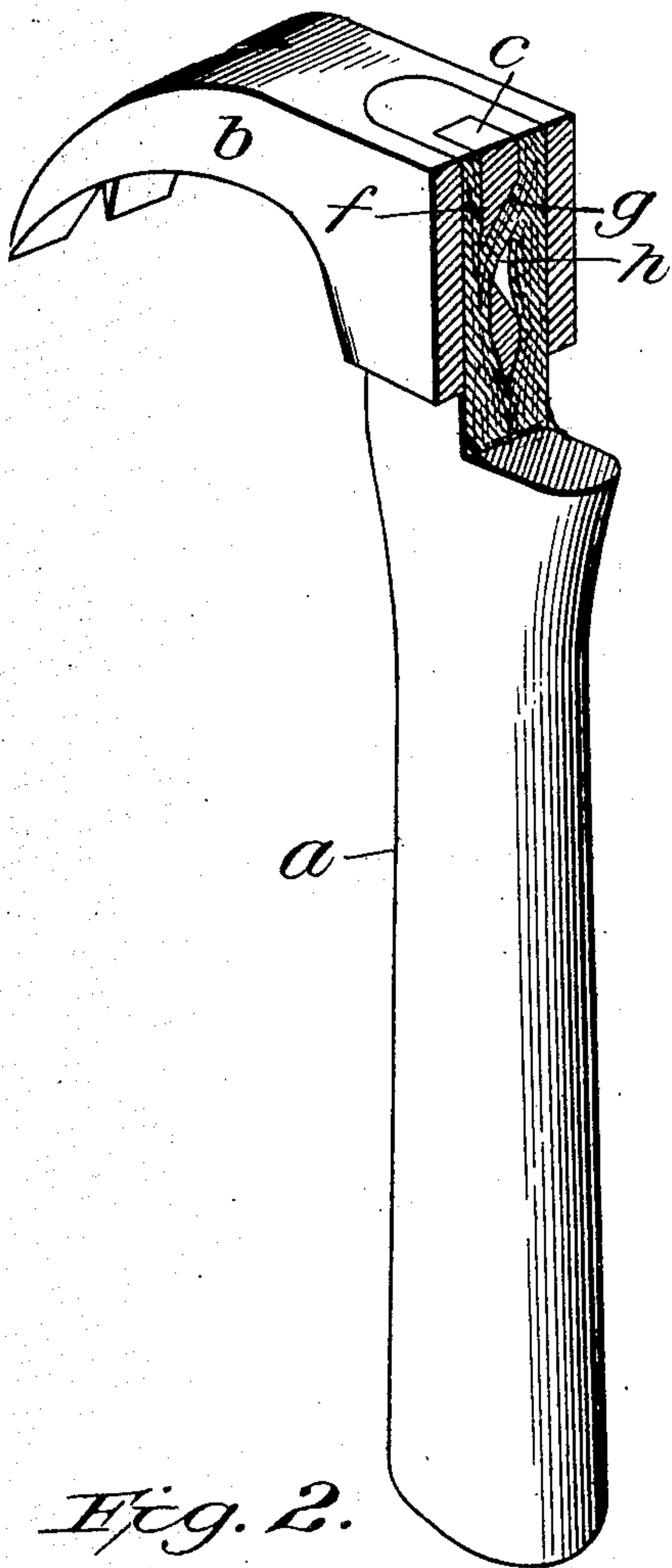
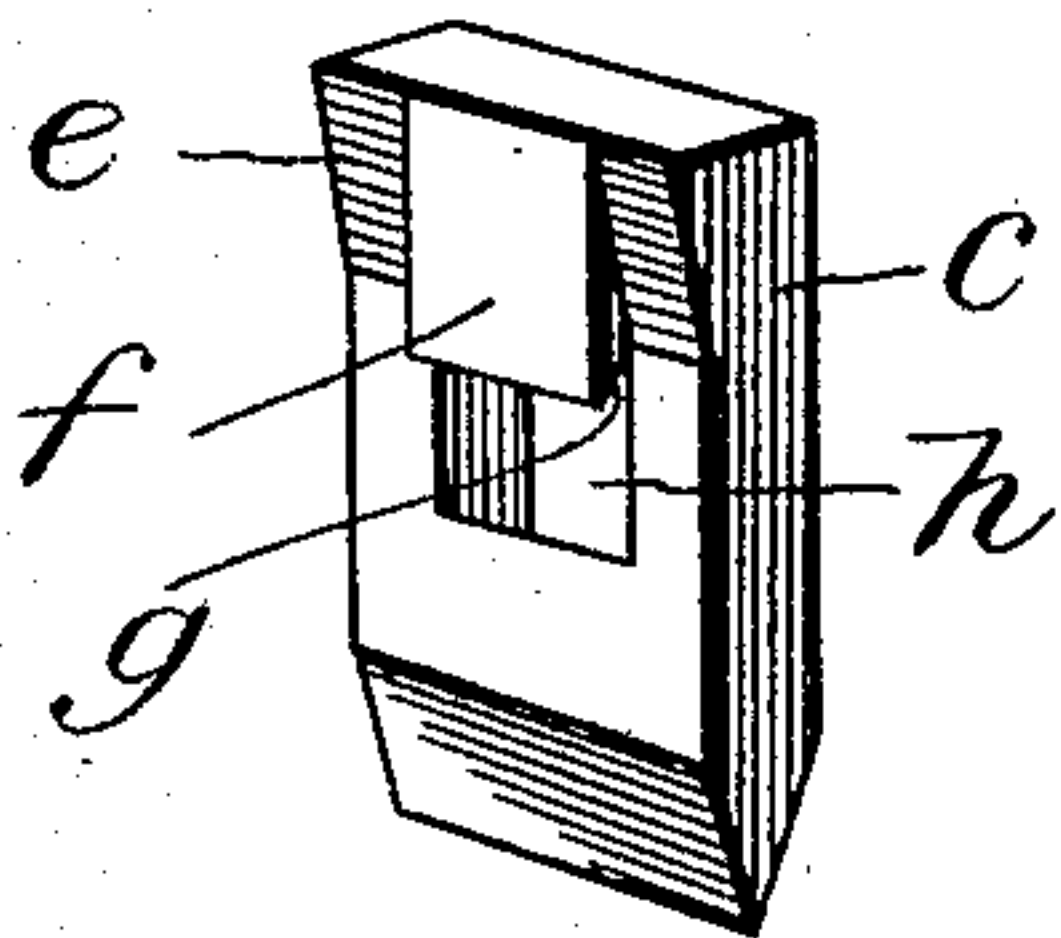


Fig. 2.



Witnesses

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Fig. 3. Fig. 4.

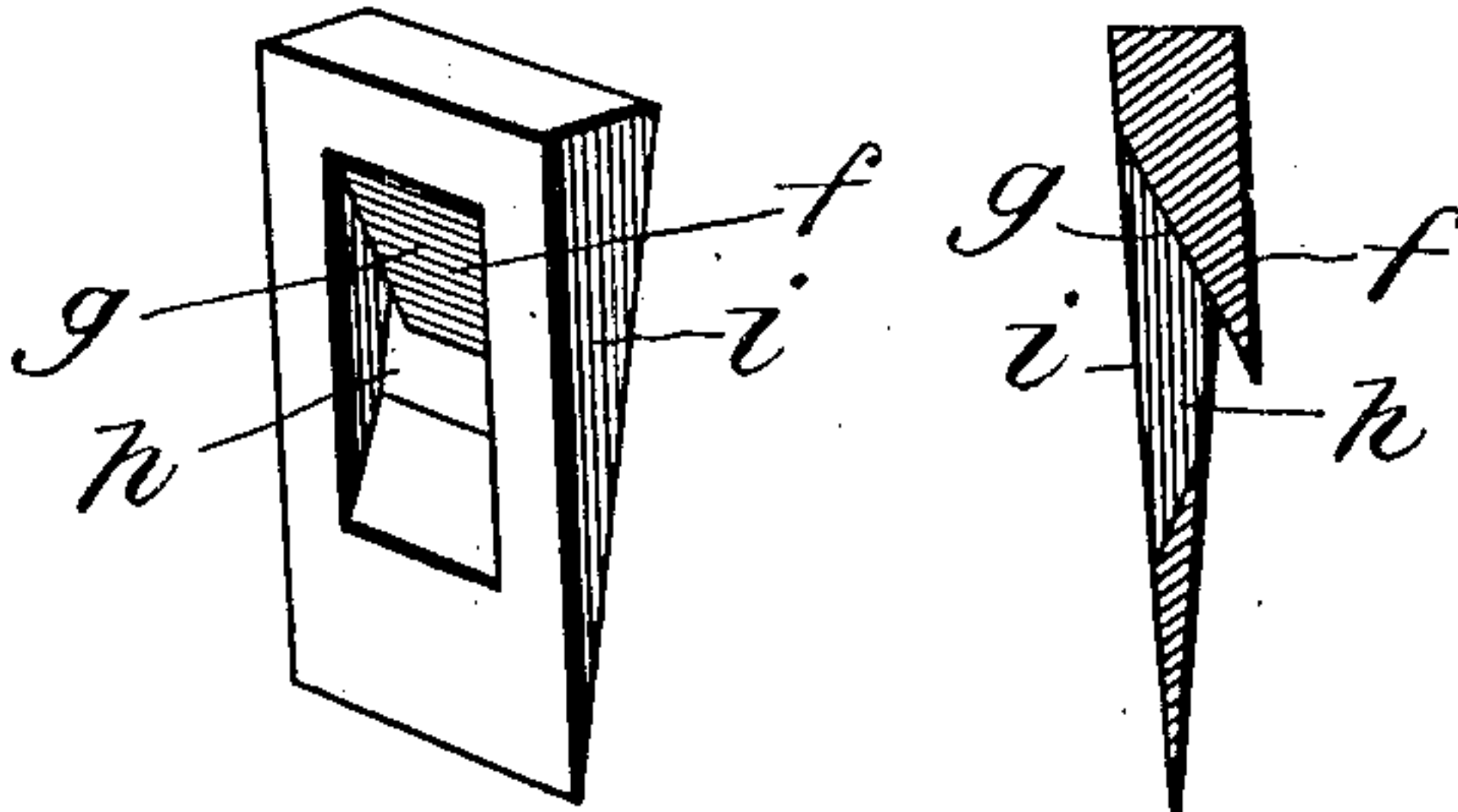


Fig. 5. Fig. 6.

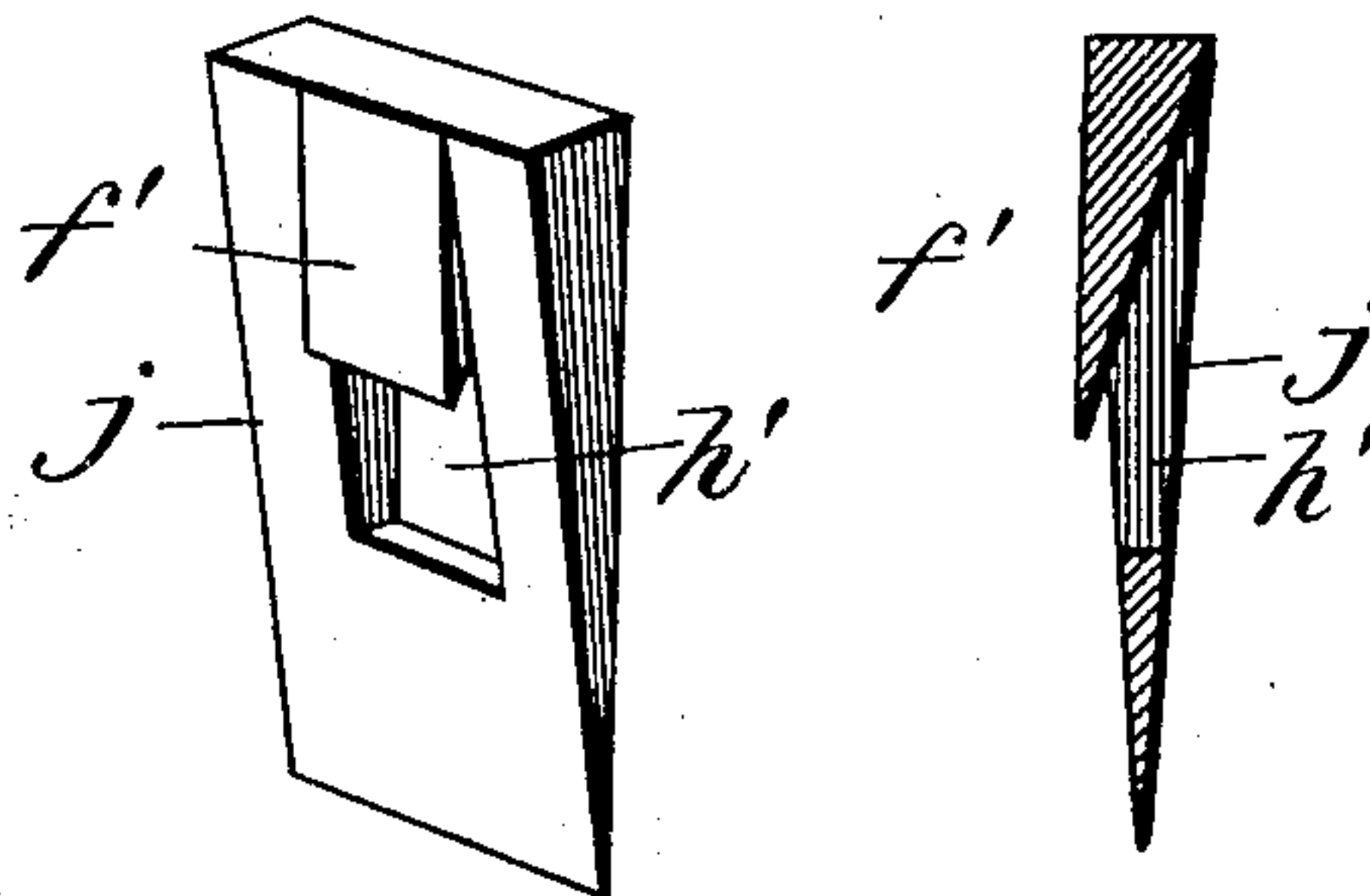
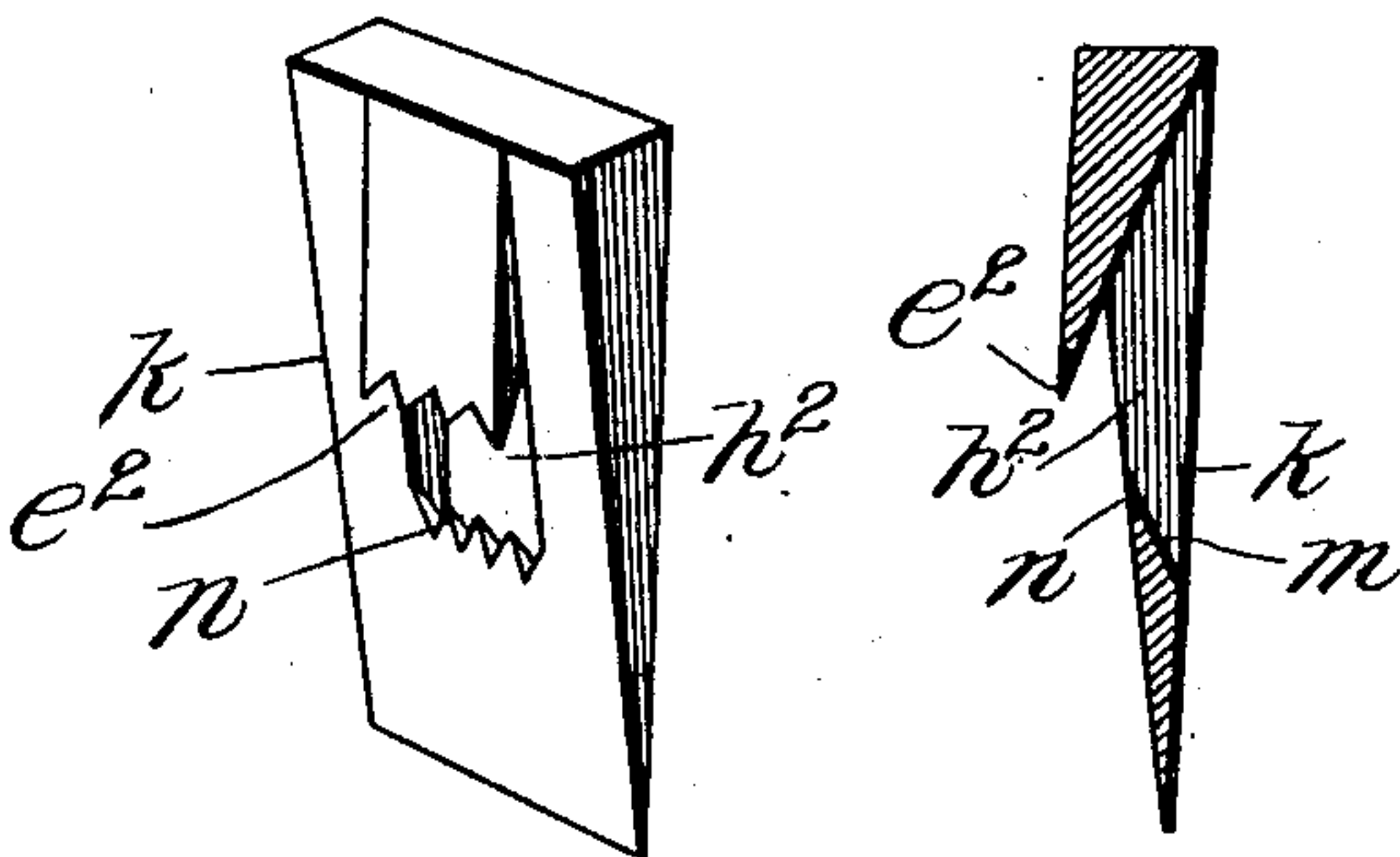


Fig. 7. Fig. 8.



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2 SHEETS—SHEET 2.

Fig. 9.

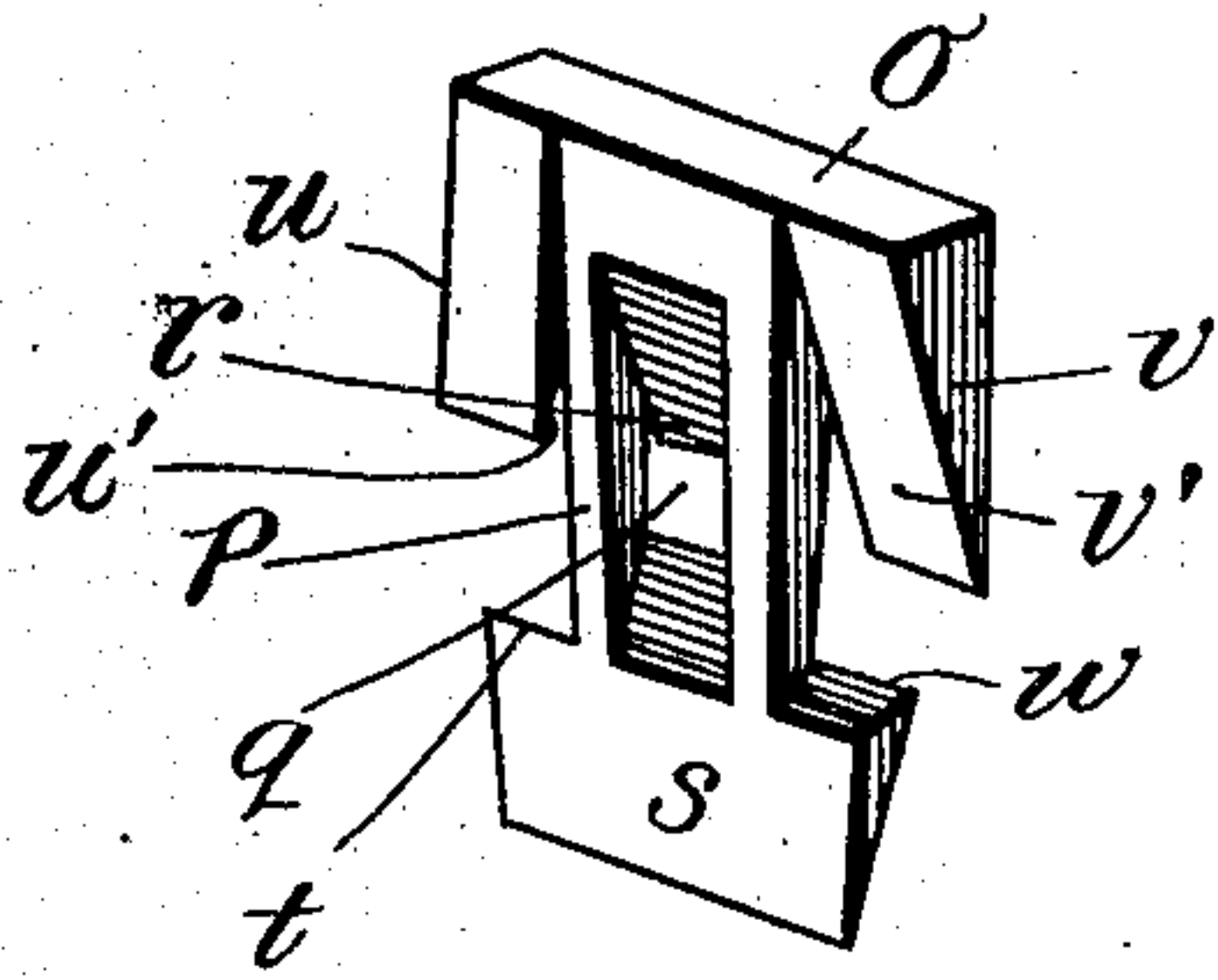


Fig. 10.

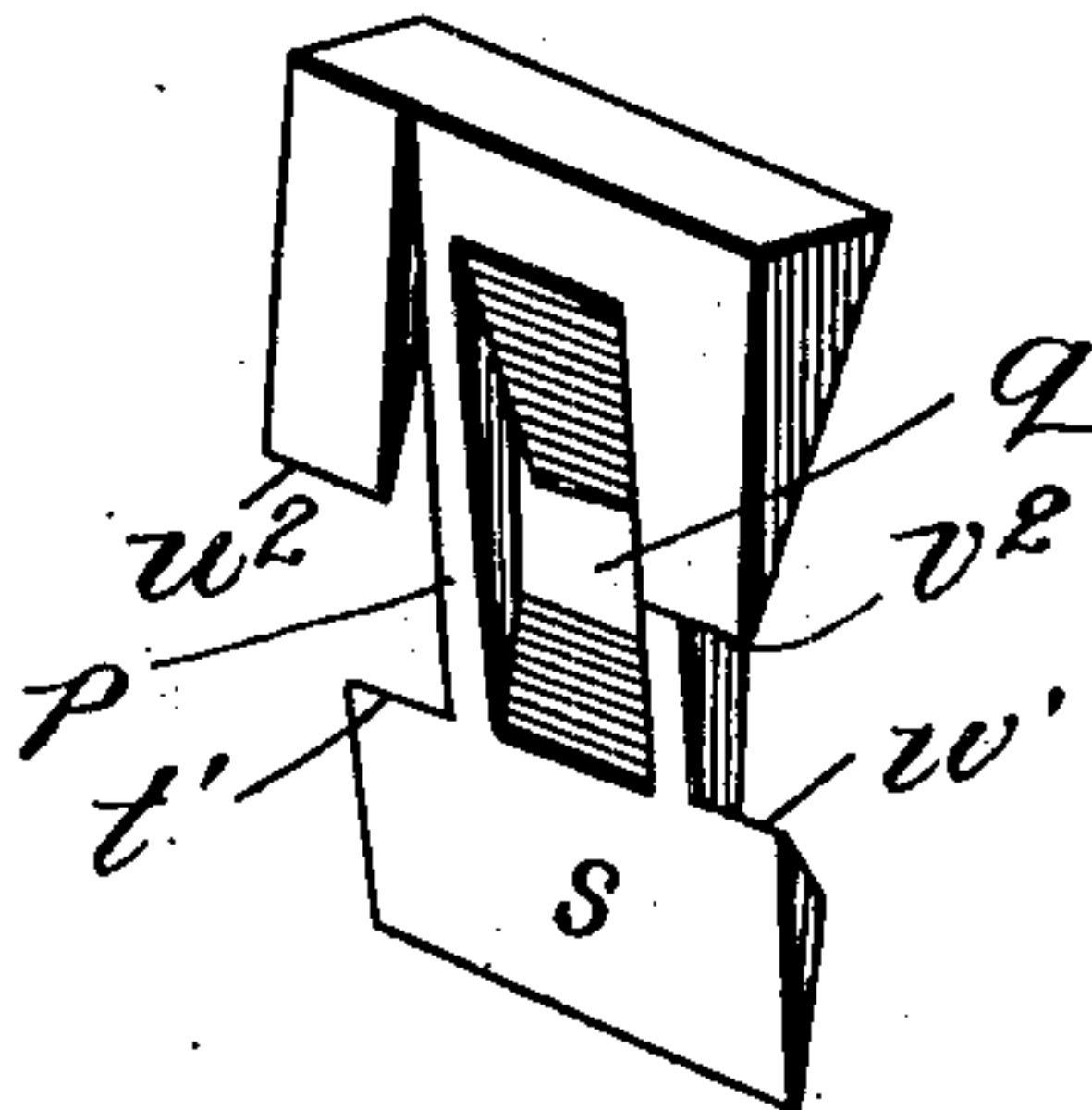


Fig. 11.

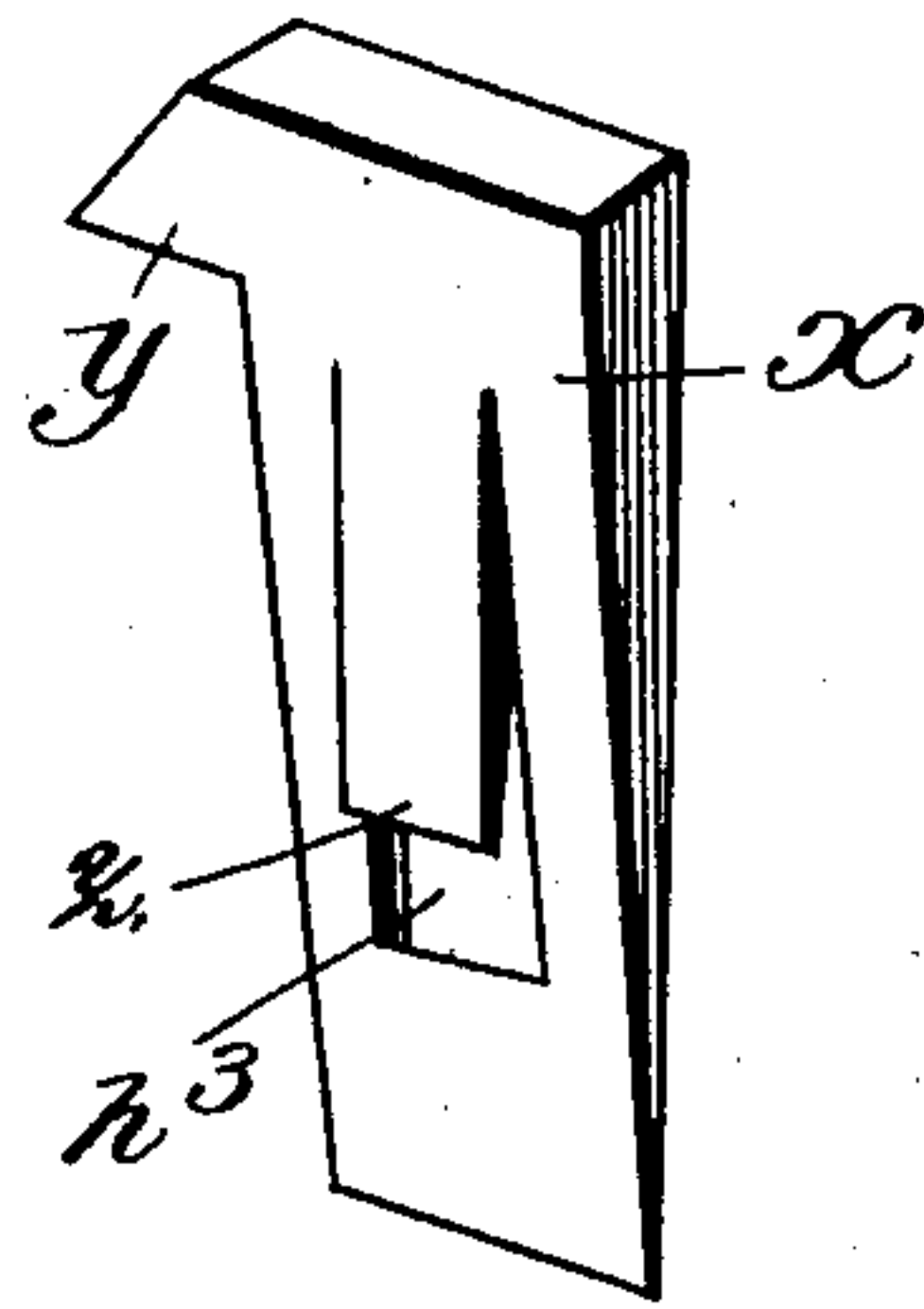


Fig. 12.

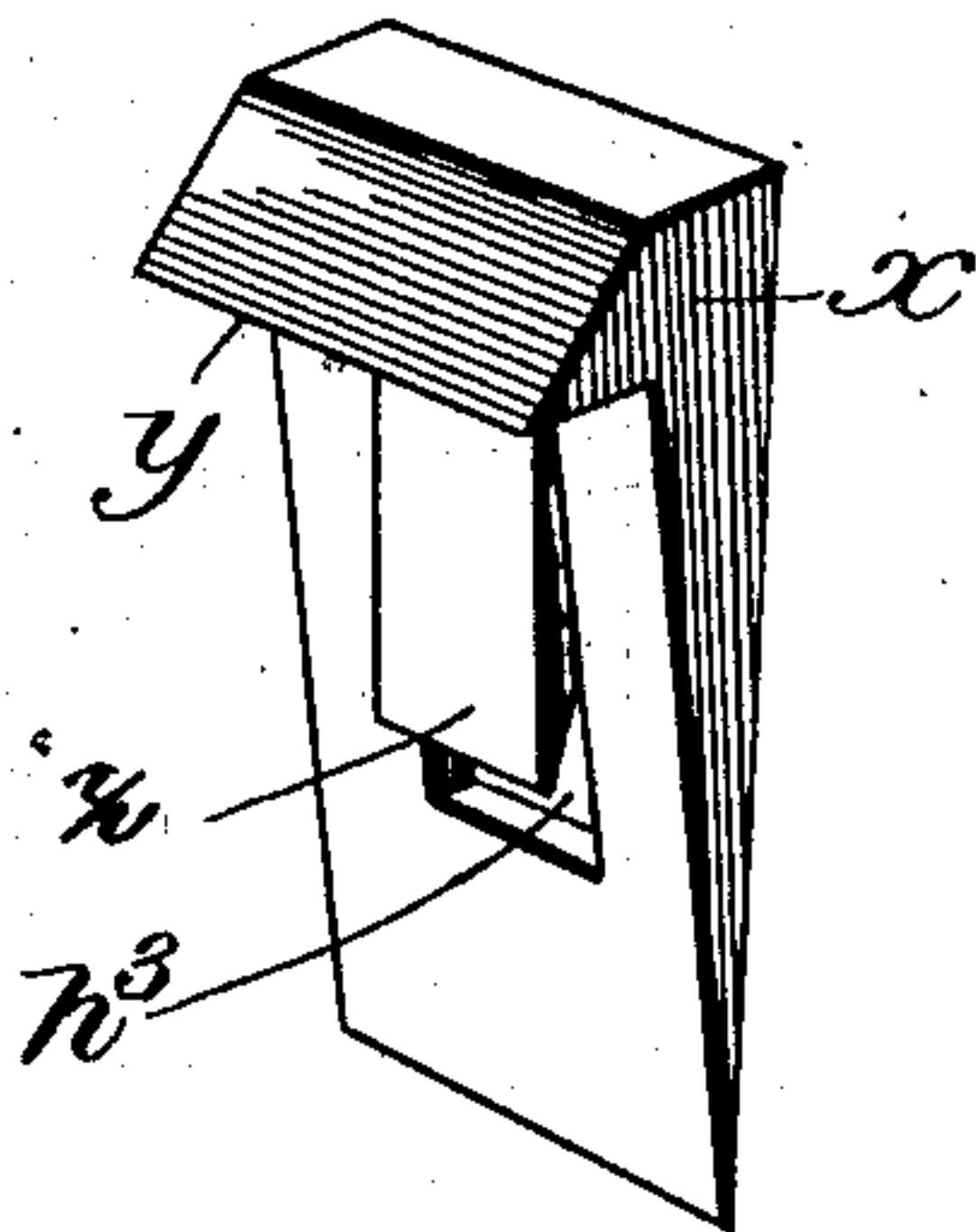


Fig. 13.

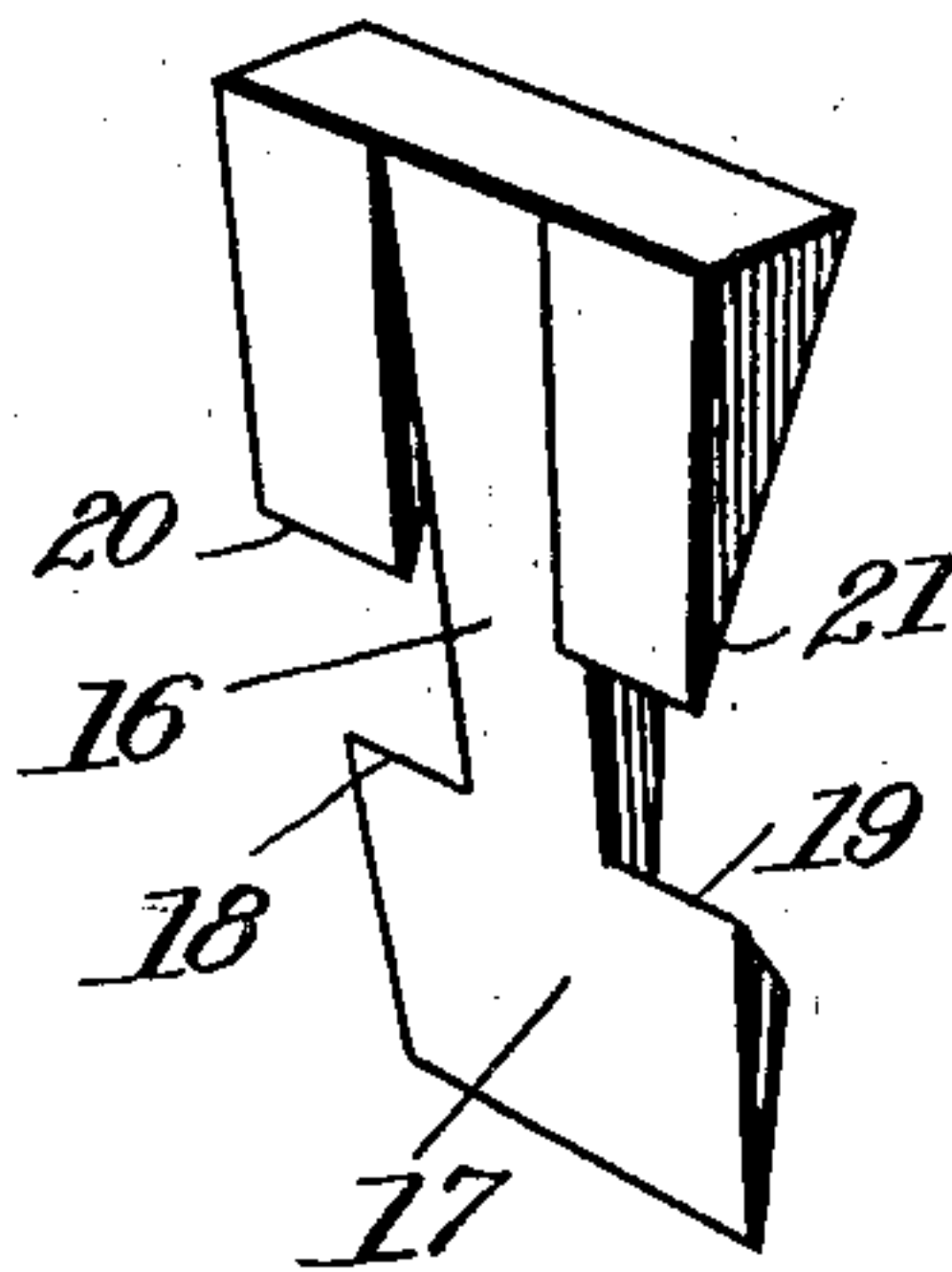


Fig. 14.

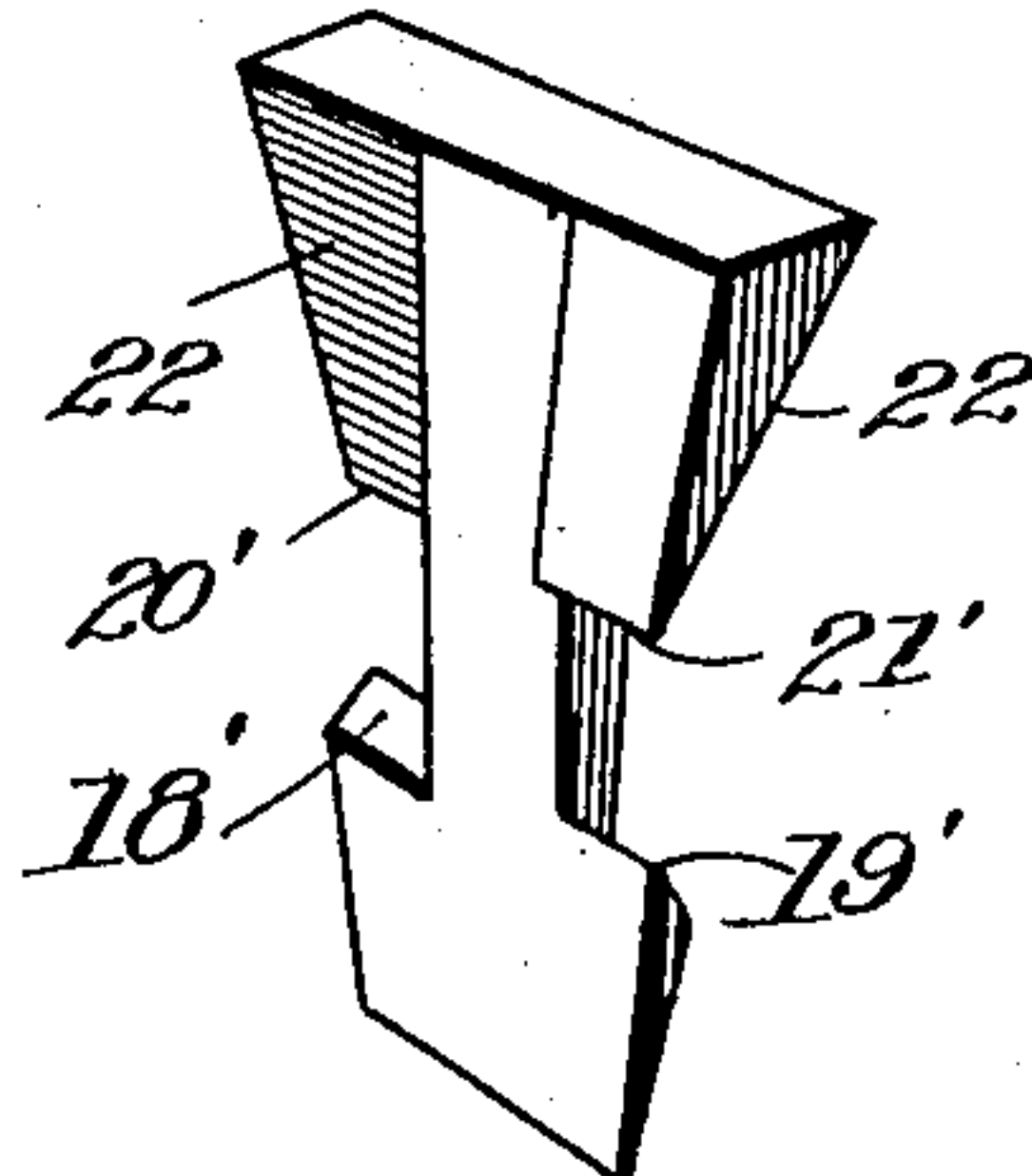
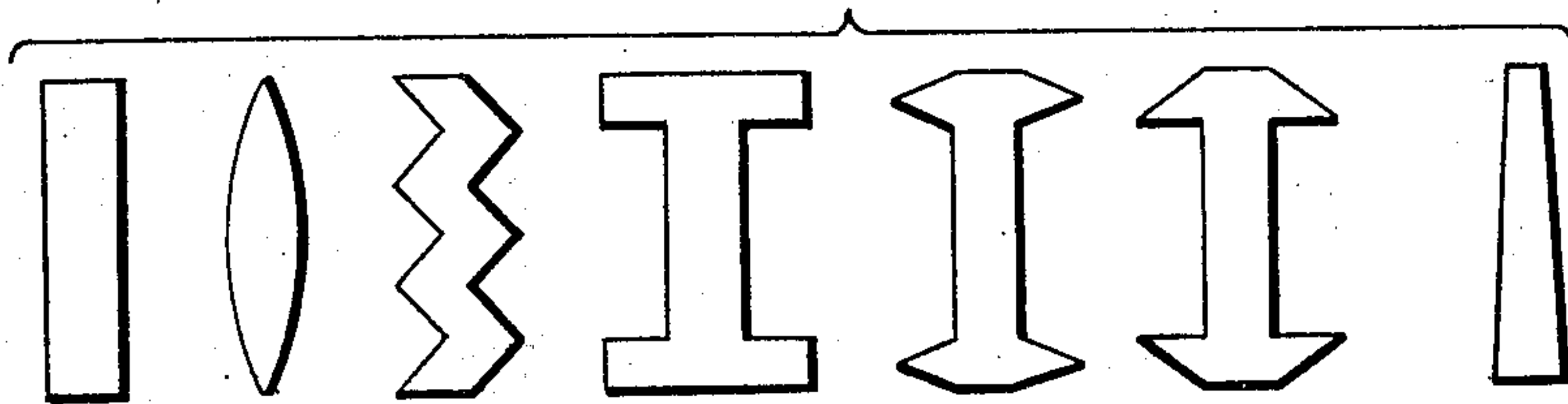


Fig. 15.



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UNITED STATES PATENT OFFICE.

HENRY H. BLAKE AND HARRY E. DENISON, OF AUBURN, NEW YORK.

WEDGE.

No. 860,347.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed October 6, 1906. Serial No. 337,742.

To all whom it may concern:

Be it known that we, HENRY H. BLAKE and HARRY E. DENISON, citizens of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Wedges, of which the following is a specification.

This invention relates to wedges.

One object is to provide an exceedingly simple, inexpensive, durable and efficient wedge adapted to prevent accidental unfastening of tools with respect to their handles.

Another object of the invention resides in the provision of a wedge constructed of a single piece of suitable material and arranged to direct the fibrous material into which it may be driven into and through the wedge.

A still further object is to provide a wedge with a central opening and a projecting portion to direct wooden fiber through the opening and thereby anchor the wedge against accidental dislodgment.

It is still further designed to provide a wedge constructed and arranged to split and separate fibers to create such a binding action as to preclude the possibility of the wedge becoming loosened from its seat.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes may be made in the form, proportion, size and minor details without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings: Figure 1 is a sectional view of a hammer including a handle and its head, illustrating the application of one form of wedge; Fig. 2 is a perspective view of the wedge shown in Fig. 1; Fig. 3 is a perspective view of another wedge; Fig. 4 is a vertical sectional view of Fig. 3; Fig. 5 is a perspective view of another form of wedge; Fig. 6 is a vertical sectional view of Fig. 5; Fig. 7 is a perspective view of another modification; Fig. 8 is a vertical sectional view of Fig. 7; Fig. 9 is a view similar to Fig. 1 showing still another form of wedge; Fig. 10 is a perspective view of the wedge shown in Fig. 9; Fig. 11 is a perspective view of another form of wedge; Fig. 12 is a vertical sectional view of Fig. 11; Fig. 13 is a perspective view of another modification; Fig. 14 is a perspective view of still another form of the invention; and Fig. 15 illustrates a brace of top views of wedges constructed in accordance with our invention.

Referring now more particularly to the accompanying drawings, and especially to Figs. 1 and 2, there is shown a handle *a* to which is secured a hammer head *b*. Any other form of tool handle may be secured to the

handle, and in order to fasten the same against accidental displacement with respect to the handle a suitable wedge is provided.

One embodiment of the wedge is indicated by the reference character *c* having its upper head portion preferably beveled outwardly upon one side, as at *e*, upon opposite sides of the downwardly projecting lip *f* whose back is beveled to aline with the beveled top portion *g* of the opening *h* in the wedge. The back of the lip is beveled to form a sharp lower edge for the purpose of splitting the fiber of the wooden handle and direct portions of it through the opening *h* and thereby anchor the wedge against accidental dislodgment. The lower edge of the opening *h* is beveled opposite to the bevel at the top of the opening and the back of the lip *f*. The lower edge of this particular form of wedge may terminate, as shown, or as illustrated in Figs. 3 and 4, in which latter illustrations, there is shown a wedge *i* somewhat similar to the wedge *c*, save at its lower edge and the elimination of the oppositely disposed beveled portions *e*.

In Figs. 5 and 6 there is shown a form of wedge *j* very similar to the wedge *i*, except that the lower edge of the opening *h'* is not beveled while the back of the lip *f'* and the top of the opening *h'* are beveled to a greater extent than is the beveling at the same places in Figs. 3 and 4.

In Figs. 7 and 8 we show a wedge *k* similar to the wedge *j*, except that the lower edge of the opening *h²* is beveled, as at *m*, with its upper edge serrated as at *n* to cooperate with the toothed or corrugated lower edge of the projecting lip *e²*. Of course, the lower edge of the opening *h²* of the wedge *k* could be straight or straight and serrated. This is too obvious for illustration as is also the fact that a serrated lower edge of the lip could cooperate either with a beveled, straight or serrated surface.

Fig. 9 illustrates another form of wedge *o* comprising an intermediate portion *p* having an opening *q* and a beveled downwardly directed lip *r* cooperating with a beveled lower edge of the opening, as in the other forms described. The lower end of the intermediate portion *p* is preferably enlarged, as at *s*, and beveled to a sharp edge. The enlargement *p* results in the oppositely disposed shoulders *t* and *w*, the former being beveled in a direction opposite to the bevel of the face *u'* of the end lip *u*, there being a lip *v* at the opposite end of the wedge provided with a beveled face *v'* lying in a plane opposite to the plane of bevel of the shoulder *w* for cooperation therewith. It will thus be understood that the shoulders *t* and *w* are inclined or beveled in opposite directions with respect to each other. If preferred, and as shown in Fig. 10, the shoulders *t'* and *w'* may be beveled in the same direction with respect to each other, with the projecting lips *u²* and *v²* projecting in the same direction with respect to each

other and with their beveled faces disposed in the same plane as the beveled or inclined top faces of said shoulders, the projecting lips u^2 and v^2 being disposed upon opposite side of the wedge to that upon which the intermediate lip r' is disposed.

In Figs. 11 and 12, we illustrate a wedge x whose head projects over one side edge of the wedge, as at y . This wedge has a projecting lip z similar to the other forms of lips described, and while the lower edge of the opening h^3 is shown straight, it may be beveled, if desired. Obviously, said lower edge may be toothed as may also be the lower edge of the lip. This particular form of wedge may substitute a spike, such as used in setting rails on ties, the projecting portion of the head of the wedge fitting over the base flange of the rail. Obviously, instead of connecting metal and wood, in the manner just stated, this wedge x may be used to connect two or more pieces of wood.

Fig. 13 illustrates a wedge whose shank 16 has an enlarged lower end 17 resulting in the formation of shoulders 18 and 19, the shoulders being beveled on their top faces in the same direction to cooperate with the lips 20 and 21, respectively, whose beveled ends lie in the same plane with the beveled faces of said shoulders. This form of wedge is very similar to the wedge shown in Fig. 14 in which the beveled faces 22 of the lips 20' and 21' are disposed in opposite planes with respect to each other for cooperation with the shoulders 18' and 19' whose tops are also beveled in planes opposite to each other, as shown.

In Fig. 15 there is illustrated a brace of top views of wedges constructed in accordance with our invention. These views will be readily understood by those skilled in the art to which our invention relates, and a detailed description is therefore unnecessary.

What is claimed is:

1. A wedge comprising a body provided with an opening having its upper and lower edges beveled, and a lip having a beveled face to direct material through the opening, the beveled face of the lip disposed obliquely to the wedge.
2. A wedge comprising a body provided with an opening intermediate its edges, and a lip arranged to direct material through the opening.
3. A wedge comprising a body provided with an opening having beveled and serrated edges, and a lip arranged to direct material through the opening.
4. A wedge provided with an opening intermediate its edges, and a lip arranged to direct material through the opening to anchor the wedge.
5. A wedge provided with an opening and an obliquely disposed wedging lip arranged to direct material through the opening.
6. A wedge comprising a body provided with an opening

having its upper and lower edges beveled, and a lip having a beveled face arranged to direct material through the opening.

7. A wedge provided with an opening intermediate its edges, and a lip arranged to direct material through the opening to anchor the wedge, the opening and lip being beveled and serrated.

8. A wedge provided with an opening having a beveled edge and a lip having a beveled face, the beveled edge and face being arranged in opposite planes and the lip disposed to direct material through the opening.

9. A wedge comprising a body provided with an opening having its upper and lower edges beveled, a lip having a beveled face arranged to direct material through the opening, and other lips cooperating with other portions of the wedge to anchor the latter against dislodgment.

10. A wedge comprising a body provided with an opening and oppositely disposed shoulders adjacent the opening, a lip arranged to direct material through the opening, and other lips cooperating with said shoulders to anchor the wedge against dislodgment.

11. A wedge comprising a body provided with an opening and oppositely disposed shoulders adjacent the opening, a lip arranged to direct material through the opening, and other lips cooperating with said shoulders, said other lips and shoulders being beveled to anchor the wedge against dislodgment.

12. The combination with a tool head and a wooden handle; of a wedge provided with an opening and a lip cooperating with the opening to direct wooden fibers of the handle through the opening and anchor the wedge against accidental dislodgment.

13. The combination with a tool head and a wooden handle; of a wedge provided with an opening, a lip cooperating with the opening to direct fibers of the handle through the opening, and other lips cooperating with other parts of the wedge to anchor the wedge against accidental dislodgment.

14. The combination with a tool head and a wooden handle; of a wedge provided with an opening, a lip cooperating with the opening to direct fibers of the handle through the opening, and other lips cooperating with other parts of the wedge to anchor the wedge against accidental dislodgment, the opening and lips each having a beveled portion.

15. A wedge provided with an opening intermediate its edges, a lip arranged to direct material through the opening, and another lip arranged to cooperate with another portion of the wedge to anchor the latter.

16. A wedge provided with an opening intermediate its edges, and a lip formed upon one face of the wedge to direct material through the opening of the wedge to anchor the latter.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HENRY H. BLAKE.
HARRY E. DENISON.

Witnesses:

D. E. FRENCH,
C. E. SPOFFORD.