

S. A. JONES.
ROOFING TILE.

APPLICATION FILED MAR. 15, 1906. RENEWED APR. 9, 1908.

903,477.

Patented Nov. 10, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

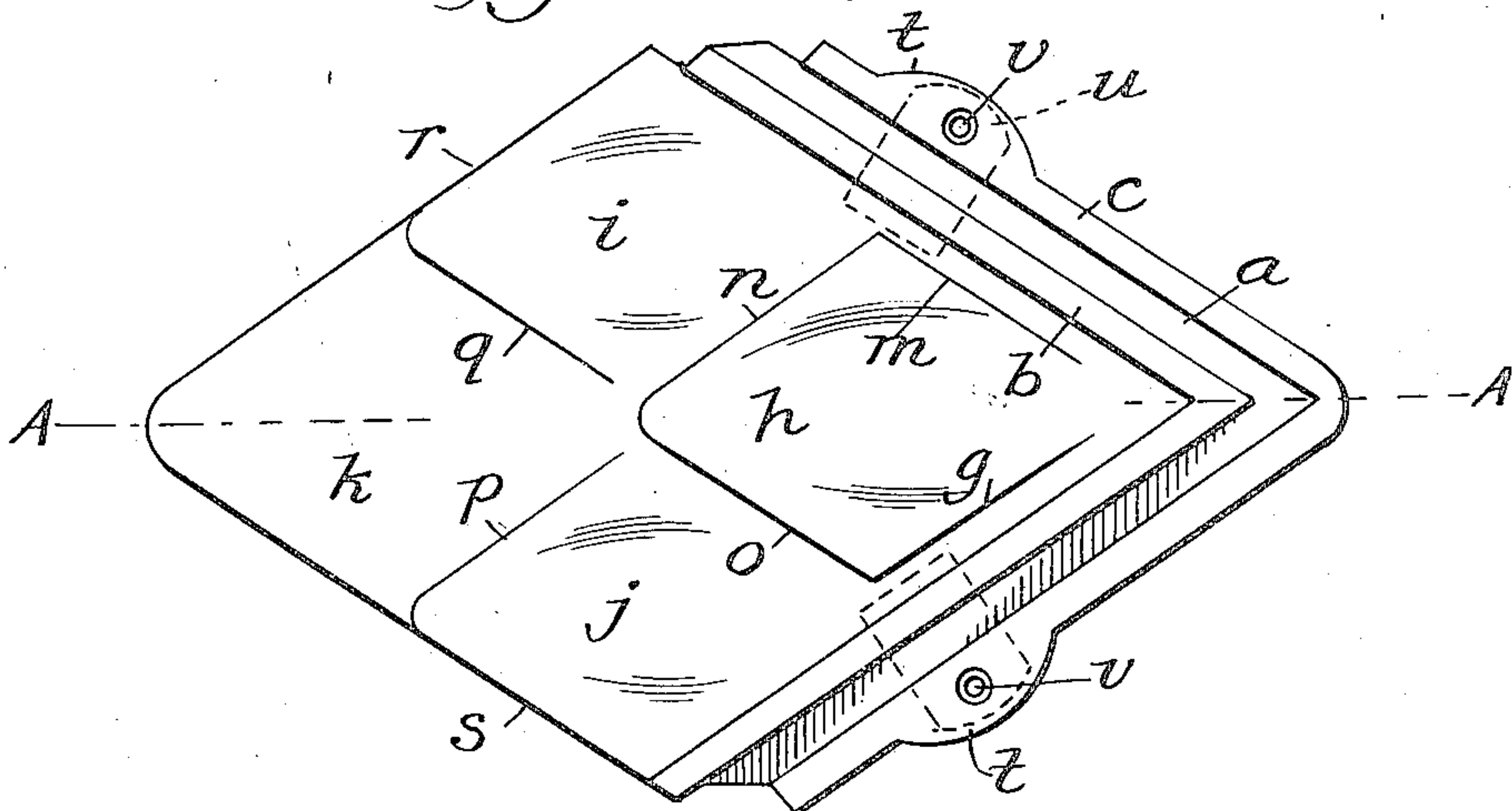


Fig. 2.

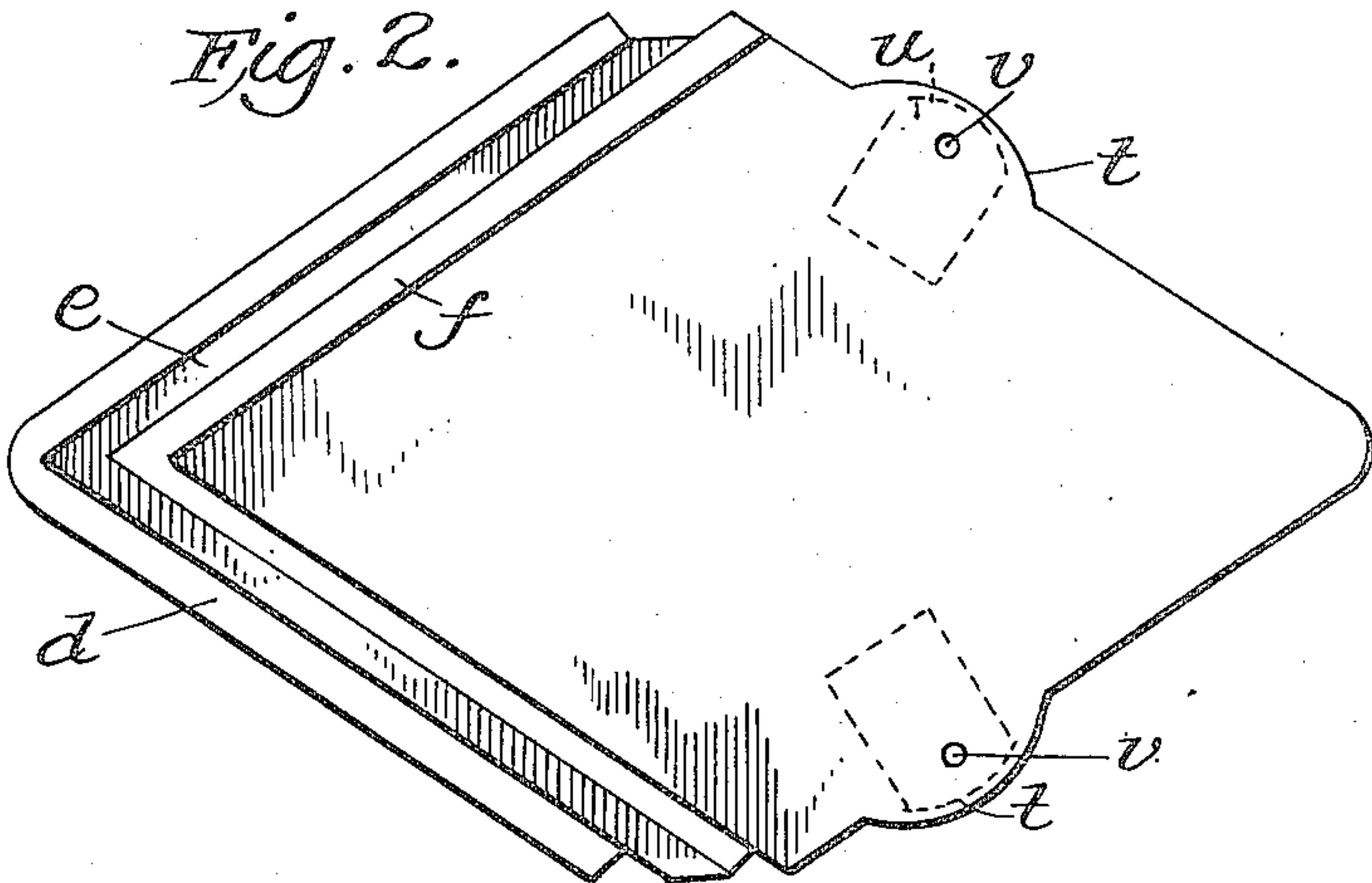


Fig. 3.

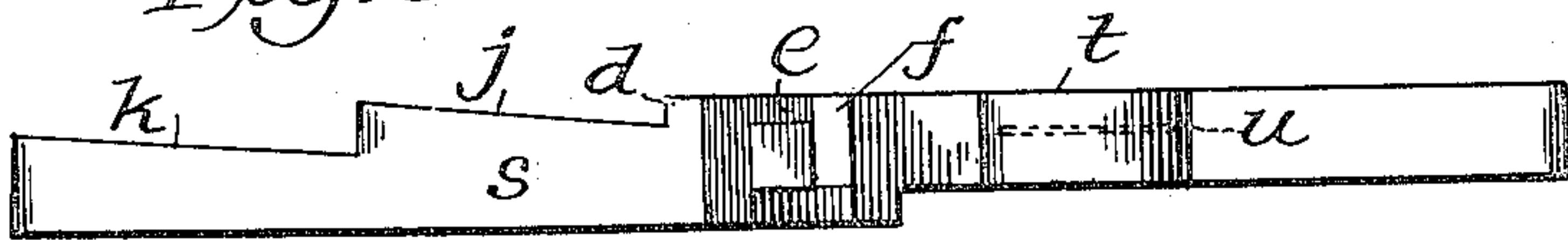
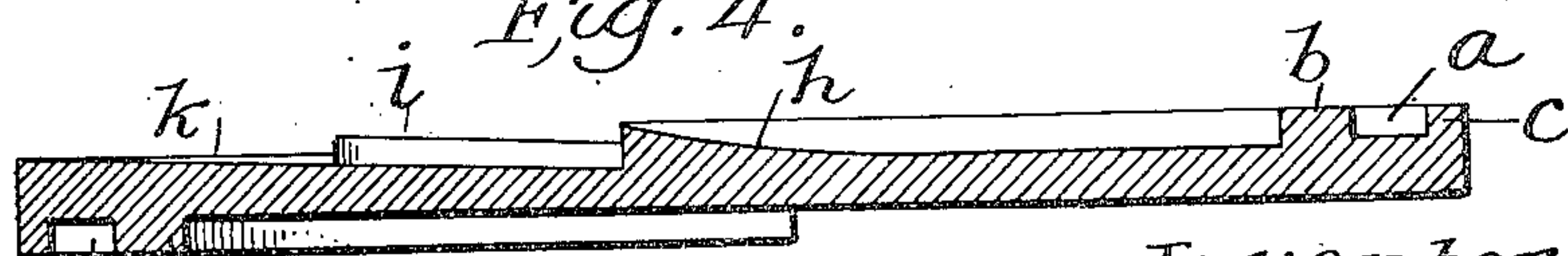


Fig. 4.



Witnesses:
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2 SHEETS—SHEET 2.

Fig. 5.

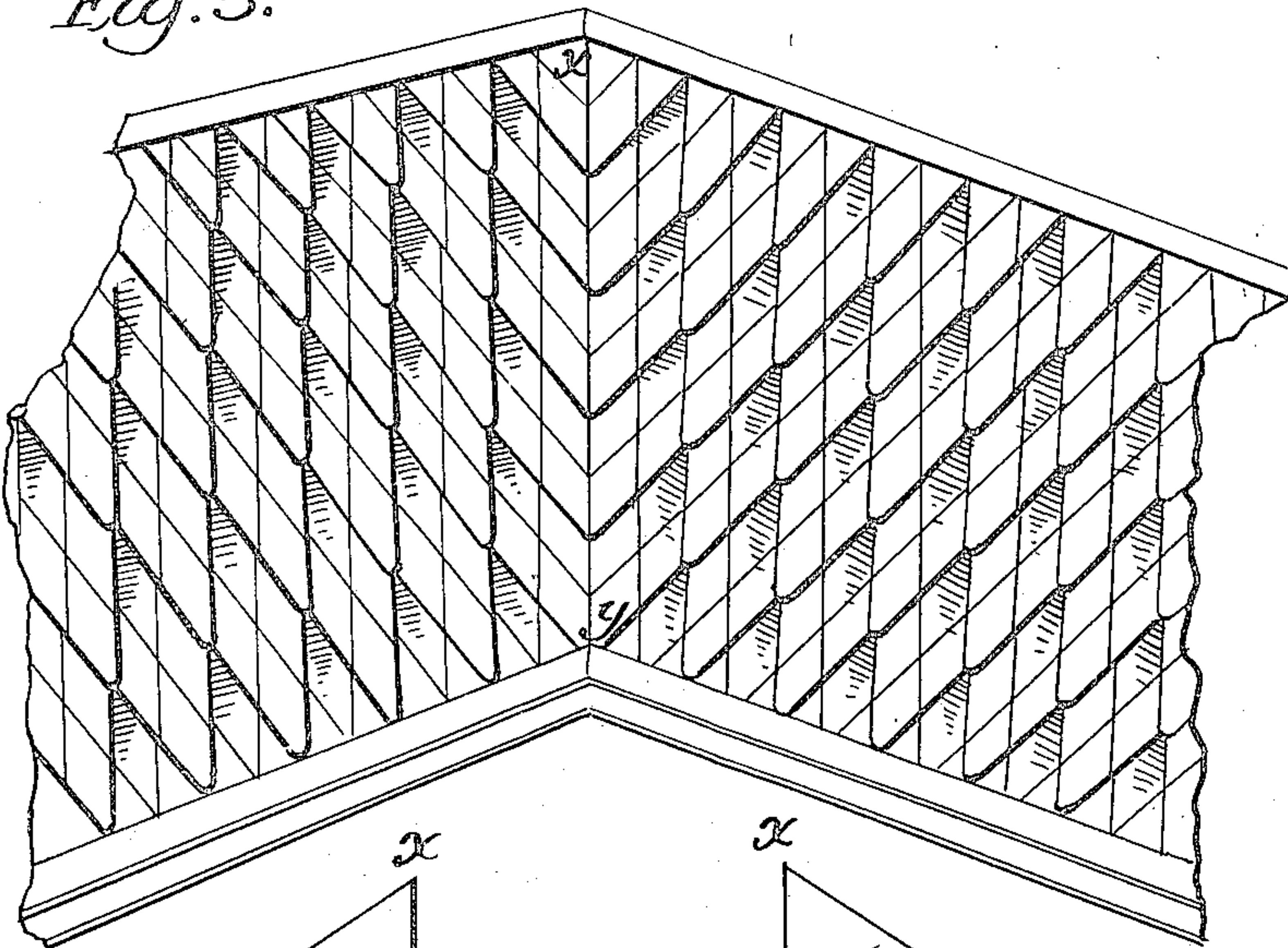
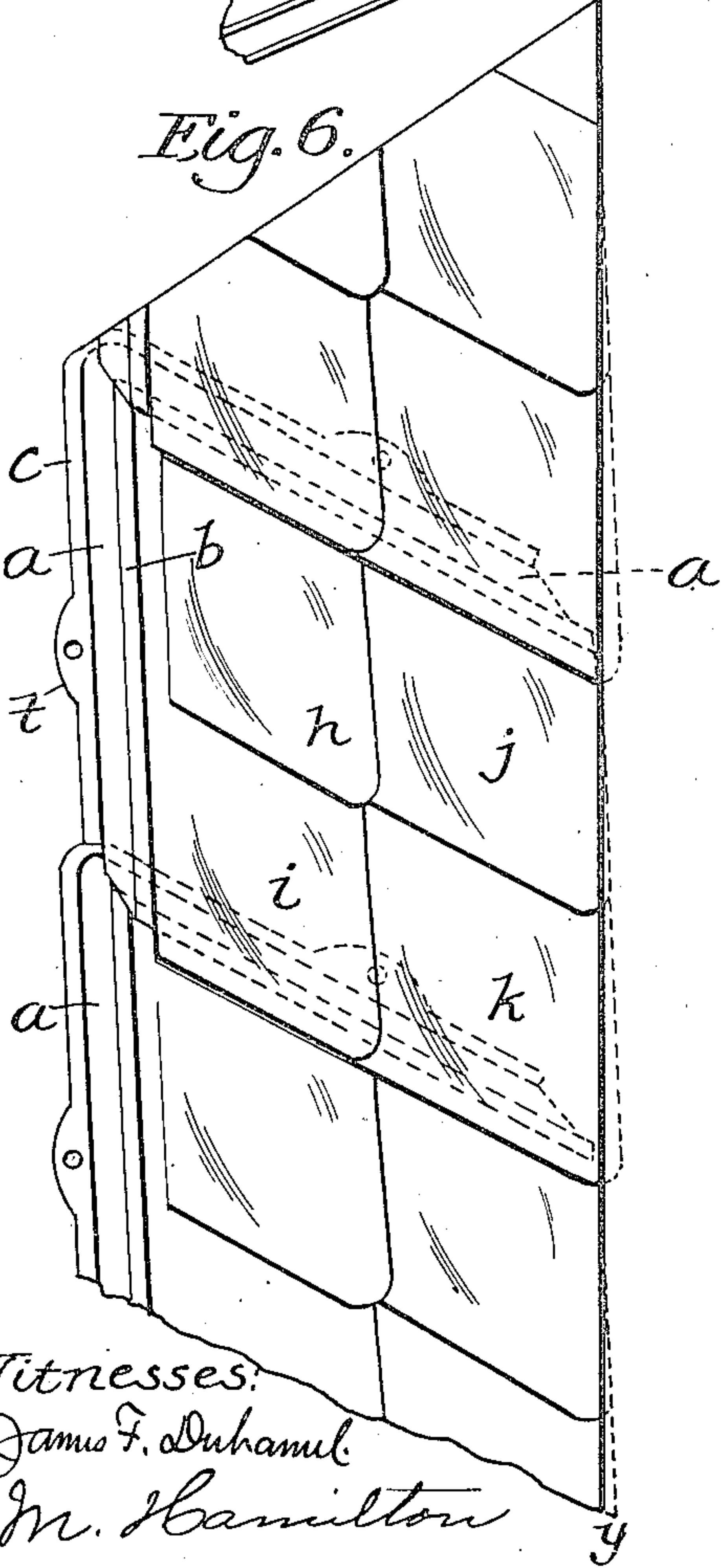


Fig. 6.

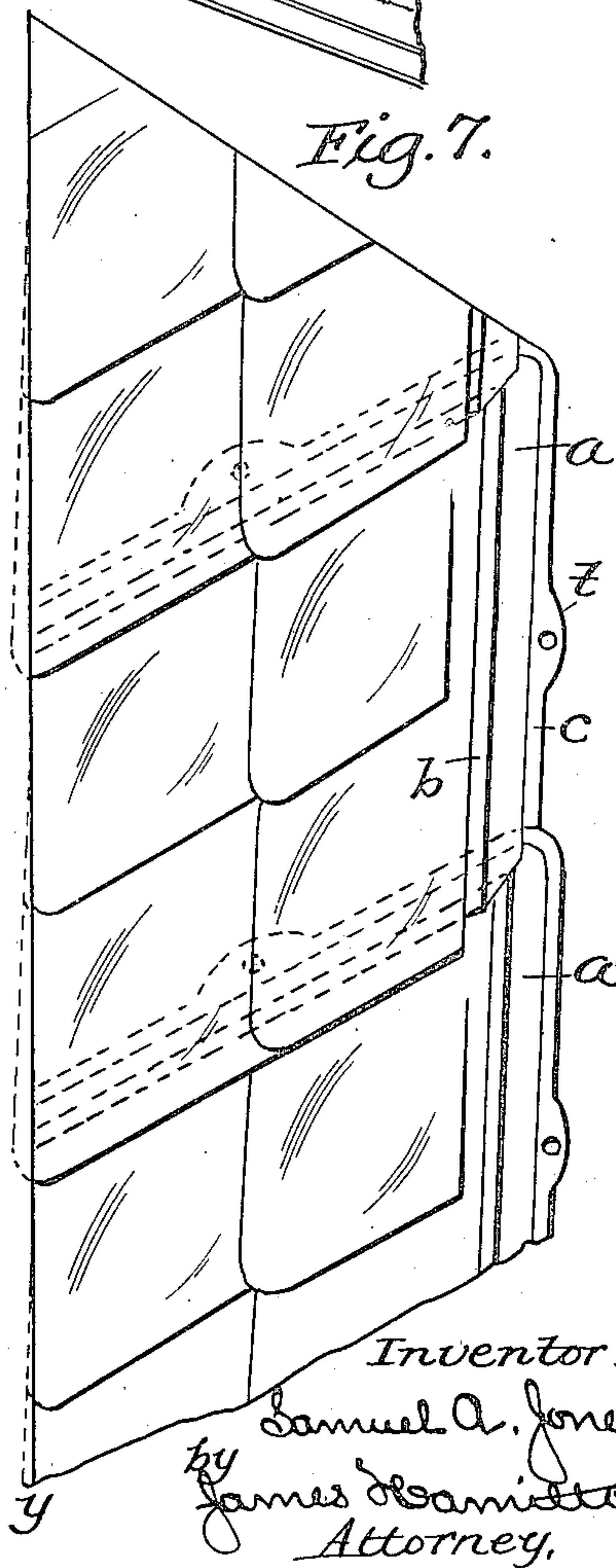


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Fig. 7.



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UNITED STATES PATENT OFFICE.

SAMUEL A. JONES, OF DESHLER, OHIO.

ROOFING-TILE.

No. 903,477.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed March 15, 1906, Serial No. 306,234. Renewed April 9, 1908. Serial No. 426,085.

To all whom it may concern:

Be it known that I, SAMUEL A. JONES, a citizen of the United States, residing in Deshler, in the county of Henry and State of Ohio, have invented certain new and useful Improvements in Roofing-Tiles, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in roofing tiles made of cementitious material.

One object of my invention is to provide a tile of this class which will give to the tiled roof a diversified and, therefore, pleasing appearance.

As now commonly made, the portion of the upper face of the tile exposed to view is perfectly plain. In my new tile the part of the face seen in position is broken up into four parts which resemble in appearance tiles of one fourth the size of the actual tile. Tiles of such a small size cannot be made commercially; and by breaking the surface of the tile as just described a diversified and pleasing appearance is given to the roof unobtainable by other means now known.

Another object of my invention is to provide means for strengthening the tile. For this purpose ribs are run from side to side of the tile, thereby reinforcing it. Further, metal reinforcing strips are introduced in the ear portions of the tile in the process of molding it. Again, the ear portions are made of a thickness equal to the full depth of the tile, a result obtainable only when the tile is made face down.

A further object of my invention is to provide a tile which will fit accurately the line of a valley in a hip roof. Heretofore the tiles have been trimmed by breaking a portion off the side, which results in great waste. My new tile is molded to the proper shape to fit along the line of the valley with great accuracy, which results in economy of material.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, Figure 1 is a plan view of the upper face of the tile; Fig. 2 is a like view of the lower face of the tile; Fig. 3 is a side elevation thereof; Fig. 4 is a central sectional view along the line A—A, of Fig. 1; Fig. 5 is a plan view of the valley in a hip roof provided with my new tile; and Figs. 6 and 7 illustrate the manner in which my new tile is made to fit accurately along the line of the valley.

My new tile is made face down in the mold, the pallet being formed with elevations and depressions which are complementary to those shown upon the upper face of the tile in Fig. 1. The channel *a* between the ribs *b*, *c* is designed to receive the rib *d* formed on the lower face of the cooperating tile, while the rib *b* enters the groove *e* between the ribs *d* and *f*. This brings the rib *f* between the inclined edge *g* of the section *h* and the rib *b*, as will be made apparent by a study of Figs. 6 and 7.

The portion of the tile's upper face which is visible when the tile is placed in position on the roof is divided into four sections, *h*, *i*, *j* and *k*, by the raised edges or ribs, *g*, *m*, *n*, *o*, *p* and *q*. The ribs *g*, *n* and *p* are practically parallel to one another, while the ribs *m*, *o* and *q* are similarly parallel to one another. The result is that there are formed four sections of about equal area and of about the same diamond shape as the tile itself. The edge *g* of the section *h* and the edge *r* of the section *i* have about the same inclination to the face of the tile, the effect of which is to give a symmetrical appearance to the roof covering, when the tiles are fitted in place. For a similar reason the edge *m* of section *h* has practically the same inclination to the face of the tile that the edge *s* of the section *j* has.

It will be observed that this tile has a flat under face which may be supported throughout its entire extent. At the same time, it will also be observed that the body portion of said tile is reinforced in all directions by the upstanding ribs *n*, *o*, *p* and *q*, which radiate toward the various edges from the central portion of the body, the ribs *n* and *o*, however, terminating short of the ribs *b* in order that the ribs *d* of the superimposed tile can be accommodated. Moreover, these ribs *n*, *o*, *p* and *q* do not obstruct the passage of water over the tile, though they extend in different directions across the same. Thus it will be evident that the said ribs perform important mechanical functions, while adding to the appearance of the tile.

As will be made clear by an inspection of Fig. 3, the ears *t* have a thickness equal to the full thickness of the tile itself or in other words, said ears project from the outer edges of the tile body and the ribs, and the thickness of each ear equals the combined thickness of the body and the rib from which it projects. Such a thickness cannot be ob-

tained by the method now commonly pursued of making the tile face up. In order still further to strengthen the ears, metal strips *u* are placed therein during the process of molding the tile. These strips *u*, as disclosed in Fig. 2, are embedded in the tile body, and extend into the ears, surrounding the apertures *v* and reinforcing the ears so that they will not break off during the process of fastening the tile in place.

In placing tiles along the line of the valley in hip roofs, it has heretofore been customary to use tiles of the same shape as are used on the main part of the roof and to trim them to fit the line of the valley by breaking from one of the sides the overlapping part. In thus trimming the tiles great waste occurs; for, the tiles are fragile and are as liable to break in one direction as in another, with the result that frequently many tiles have to be wasted before one can be trimmed to fit even approximately.

In Figs. 6 and 7 the line *x—y* indicates the true line of the valley or the line of intersection of the two planes which form part of a hip roof. If the tiles are made of the shape shown in Fig. 1, they will, if laid without trimming, overlap the line of the valley, *x—y*, as shown by the dotted lines in Figs. 6 and 7. It will be observed from an inspection of Figs. 6 and 7 that the lower corner of the tile projects beyond the line of the valley by a distance equal to the width of the rib *b*. In order to avoid the waste of tiles which occurs in trying to fit the tiles along the valley, I provide tiles especially designed and molded to fit accurately along the line of the valley in hip roofs. Since the overlap of the normal or standard tile will vary with the pitch

of the roof, these valley tiles are made for roofs of the standard pitches. The overlap is cut from the tile in the process of molding by placing in the mold an inset piece of the shape of the overlap portion. The tile will thus be given the form shown by the full lines in Figs. 6 and 7.

What I claim is:

As an article of manufacture, a roofing tile formed of cementitious material and comprising a substantially diamond-shaped body having depending ribs along its two lower margins and spaced upstanding ribs projecting from its upper face and disposed along each of the upper side margins, ears projecting from the two upper edges of the body and from the outer of the latter ribs, said ears being equal in thickness to the combined thickness of the body and ribs, a plurality of strengthening ribs projecting from the upper face of the body and radiating from the central portion thereof toward the various edges, the ribs that project toward the lower edges terminating at said lower edges, and the ribs that extend toward the upper edges of the body terminating short of the upstanding marginal ribs at a distance substantially equal to the width of the depending ribs to permit the depending ribs of the superimposed tiles resting upon the body between the upstanding ribs and the strengthening ribs.

In testimony whereof I hereunto set my hand this twelfth day of March, 1906, at said Deshler in the presence of two witnesses.

SAMUEL A. JONES.

Witnesses:

S. COTTINGHAM,
J. B. GRIBBELL.