

(No Model.)

A. NERACHER.  
ROOF GUTTER.

No. 500,416.

Patented June 27, 1893.

Fig. 6.

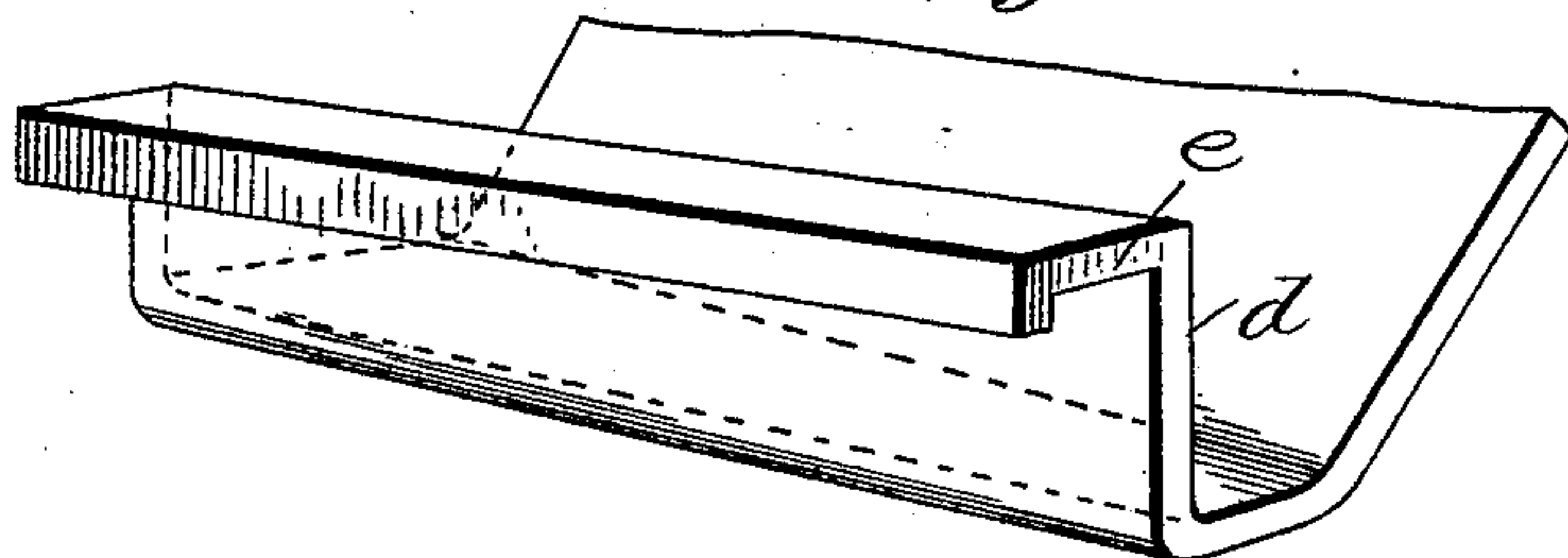


Fig. 1.

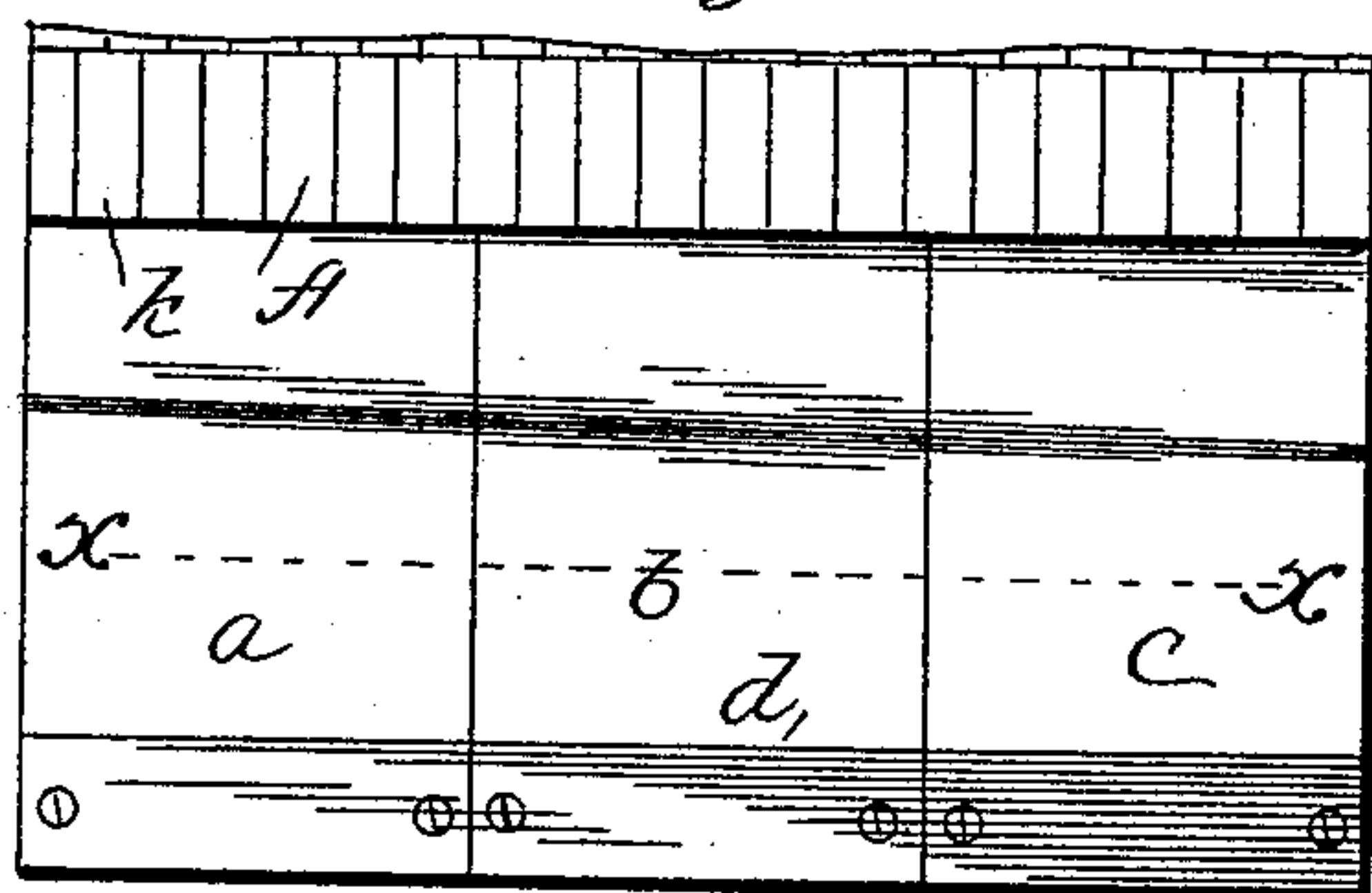


Fig. 3.

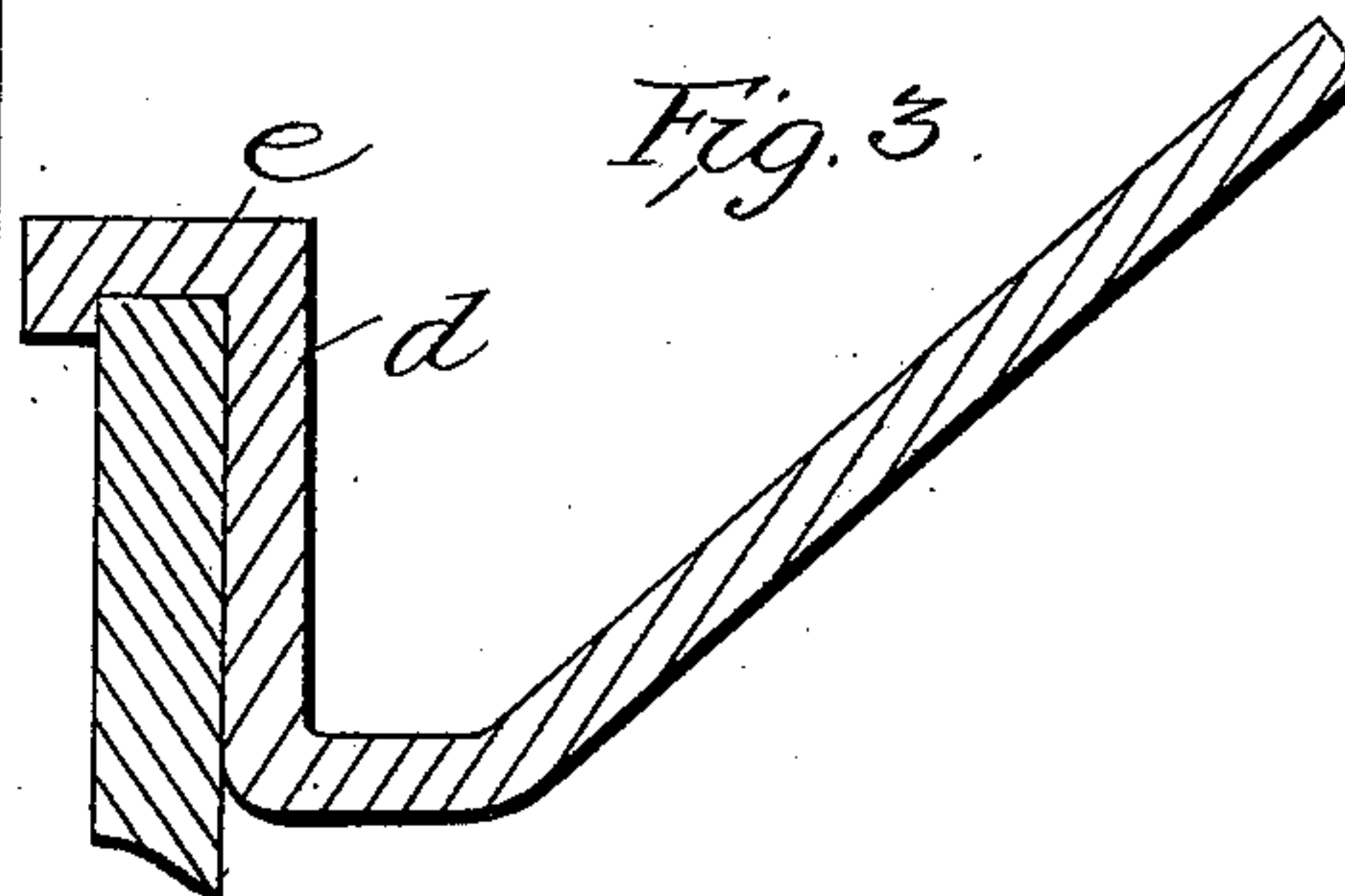


Fig. 2.

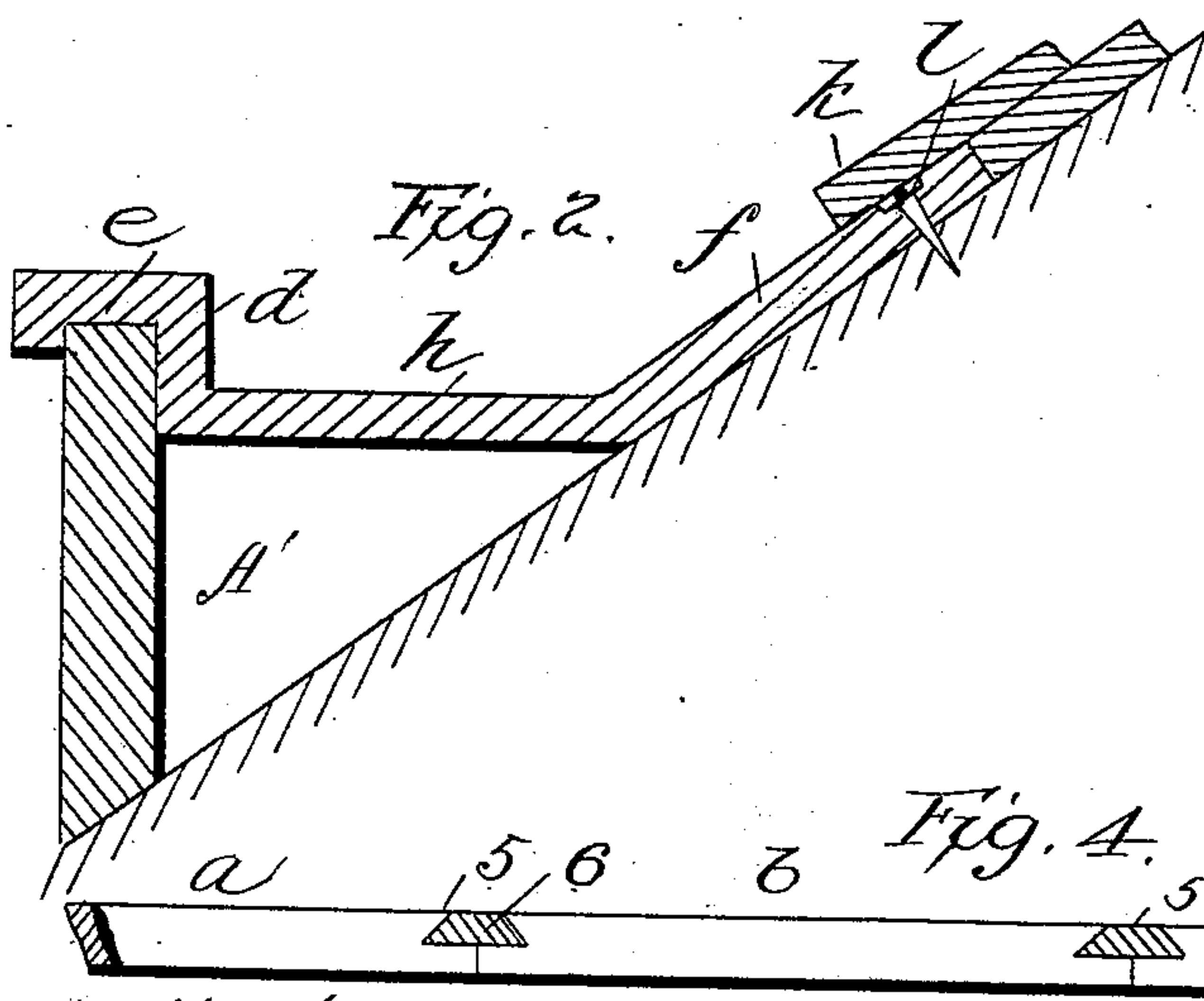


Fig. 5.

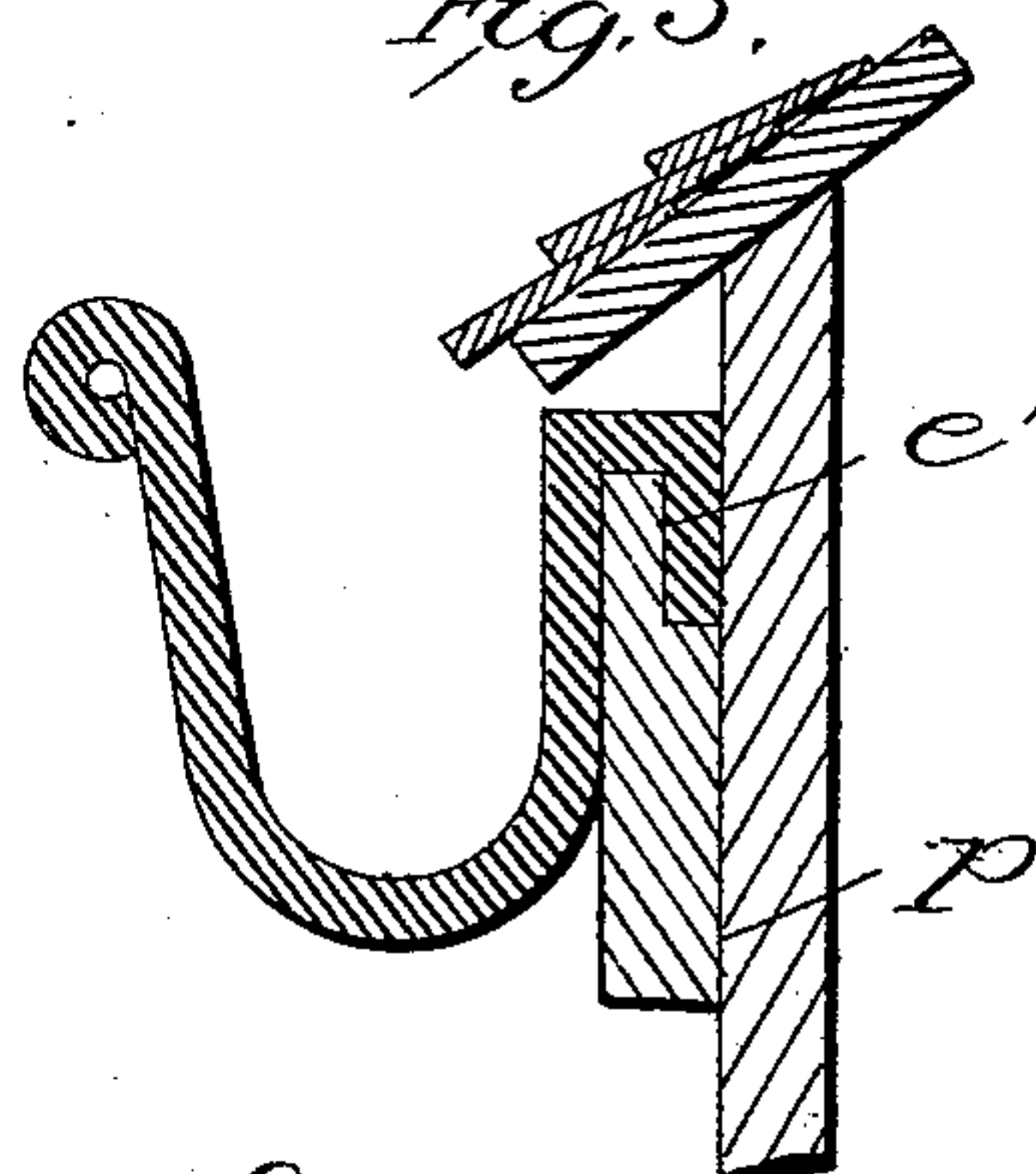


Fig. 4.

Attest  
Pattern maker  
J. L. Middleton

Inventor  
Adolph Neracher  
by Wm. Spear  
Atty.



# UNITED STATES PATENT OFFICE.

ADOLPH NERACHER, OF CLEVELAND, OHIO.

## ROOF-GUTTER.

SPECIFICATION forming part of Letters Patent No. 500,416, dated June 27, 1893.

Application filed January 4, 1893. Serial No. 457,240. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH NERACHER, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Roof-Gutters, of which the following is a specification.

The invention is in the class of roof gutters, and is designed to secure durability, economy in the construction and perfectly water-tight surface and joints.

It consists of a special construction of gutter, formed of plastic material, as hereinafter set forth.

My said invention is illustrated in the accompanying drawings in which—

Figure 1, is a plan view of the gutter sections in place. Fig. 2, shows a transverse section of the higher end of the gutter. Fig. 3, is a like section of the lower end. Fig. 4, is a section on line  $x-x$  of Fig. 1. Fig. 5, shows a section of a modified form. Fig. 6, is a perspective view of a portion of the gutter.

In the drawings A, represents a section of the roof. Near the eaves is set a vertical face board, A' which is preferably of wood, but may be of any suitable material. Its sole purpose is to support the sections of the gutter.

The gutter as illustrated in Fig. 1, is composed of sections,  $a$ ,  $b$  and  $c$ . It is composed of plastic material, capable of hardening upon exposure to the atmosphere, or by the action of heat. Sections such as those shown, may be made of clay formed into the proper shape and hardened by fire. But if the gutter is formed in place, hydraulic cement or any equivalent substance may be used. The outer edge of the gutter is formed with an upturned edge  $d$ , having an outer face bearing against the face board, and a groove  $e$ , which fits over the edge of said board. The inner end,  $f$  is turned up at an angle to fit the slope of the roof, and has a straight edge parallel with the outer edge and fitted to bear against the outer edge of the row of shingles or slate, next to said edge, the joint being covered by the next row  $k$ , of the shingle or slate. The horizontal part  $h$ , forms the bottom of the gutter.

The sections are formed with holes for screws or nails  $l$ , by means of which they are held

to the roof. These sections also have grooves or rabbets  $5$  in the sides, running parallel therewith. These, when they come together, form one groove, into which a plastic material  $6$ , such as hydraulic cement is run, or pressed, to fill the groove and unite the edges and form a water-tight joint. It will be observed that the upper edges of the sections, being parallel with the lower or outer, form when united, a strip of equal width throughout, so that the upper edge is on a line with and abuts against the edge of the row of shingles or slate, next above. If the sections were all made alike, there would be no slope or out fall for the water. In order to provide for this, the sections are made in series, and each with a slight inclination of the bottom. This gradual depression of the bottom leaves the outline of the lower end of a contour slightly varied from the upper end, and each succeeding section in the series varying slightly from that which next precedes it. Thus the last or the one near the last is properly represented by Fig. 3, while the first is represented by Fig. 2. In the form shown in Fig. 3, the wells are broader and the bottom narrower, the latter narrowing and growing deeper gradually from the upper to the lower end.

I do not confine myself to the precise form of the rib or groove which forms the connection between the outer edges of the sections or gutter and the face board.

Another form of sectional gutter is shown in Fig. 5. This is intended for a hanging gutter. In this the rib having a groove  $e'$ , fitting the support, is upon the other or inner side. The board or strip of metal, or other suitable material, is fastened to the wall of the building underneath the eaves, as shown at  $p$ . The grooved edges of the trough sections, are hooked over the upper edge of this and are thereby supported. The face of the gutter, which bears against this support is made plain down to a sufficient distance to form a firm bearing and prevent tipping. The outer edges of the sections are formed with a hole at each end, so that these edges may be connected by dowel-pins. The abutting edges of the sections are united and the joints made

tight in the manner above described by cementing in grooves.

I claim—

1. A tapering gutter composed of hardened  
5 plastic material formed with a bottom decreasing in width, and increasing in depth from the upper to the lower end, substantially as described.
2. The gutter formed of sections having in-  
10 clined inner sides fitted to the roof, a taper-

ing bottom, and an outer rib fitted to the outer support, and grooves on the lateral edges adapted to receive a cement filling, substantially as described.

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

ADOLPH NERACHER.

Witnesses:

HENRY E. COOPER,  
JAMES M. SPEAR.