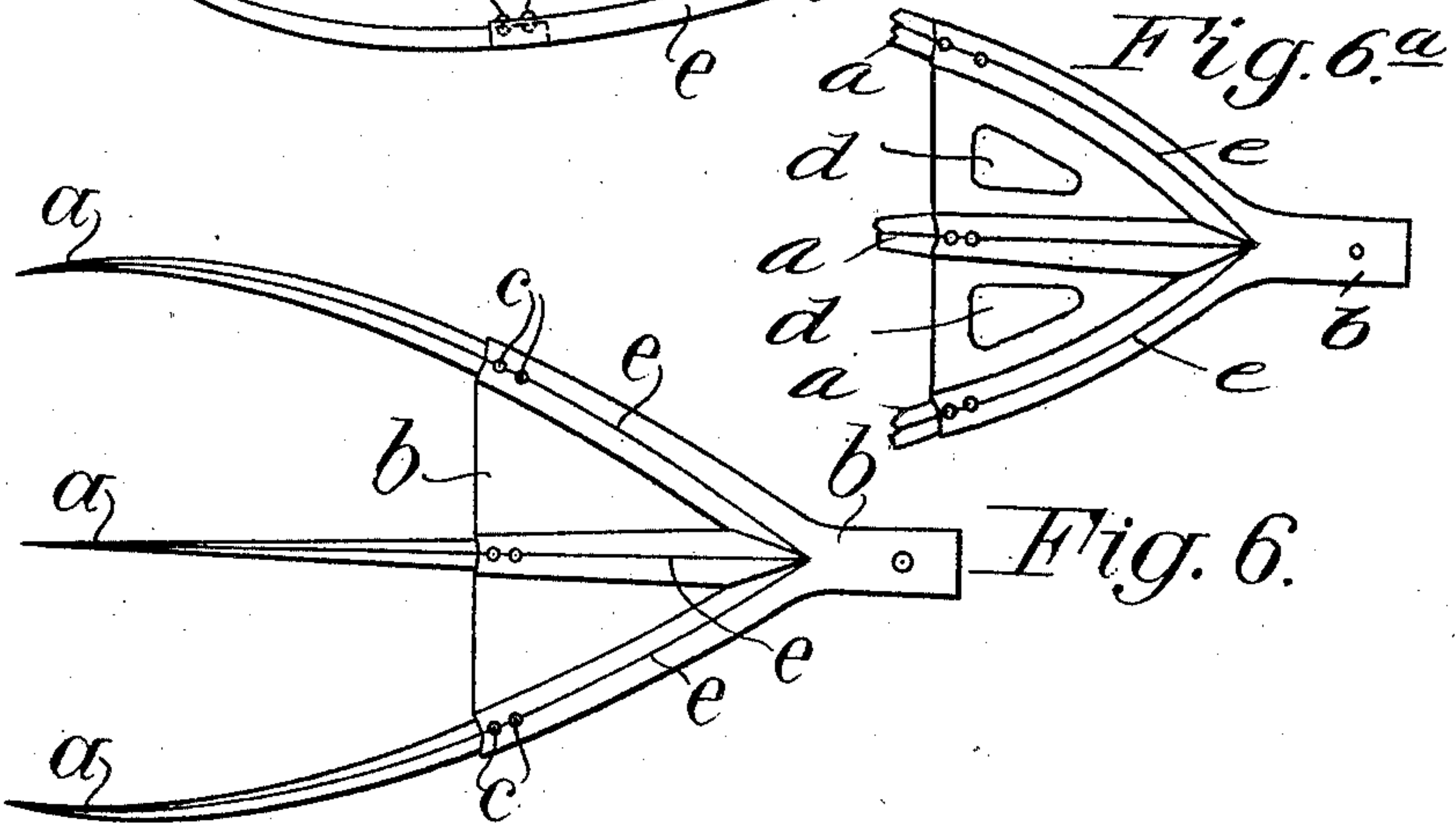
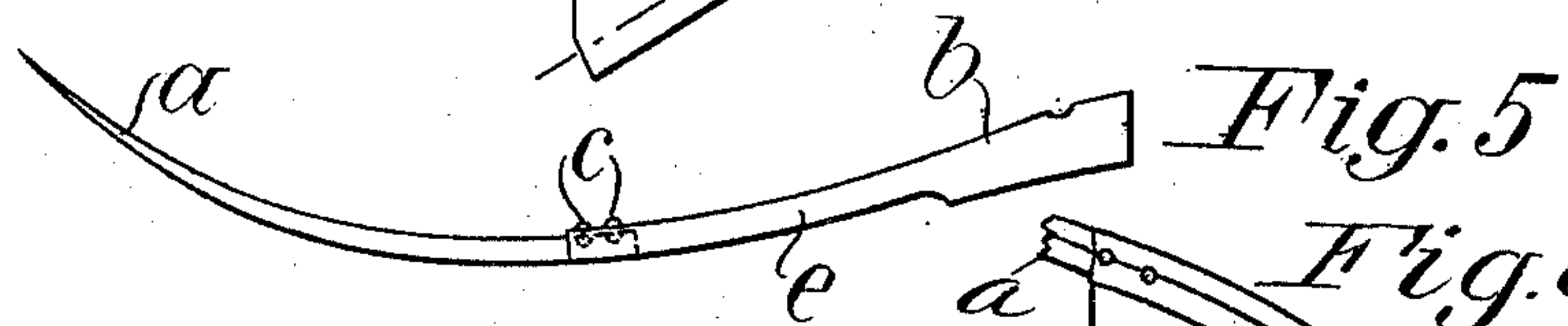
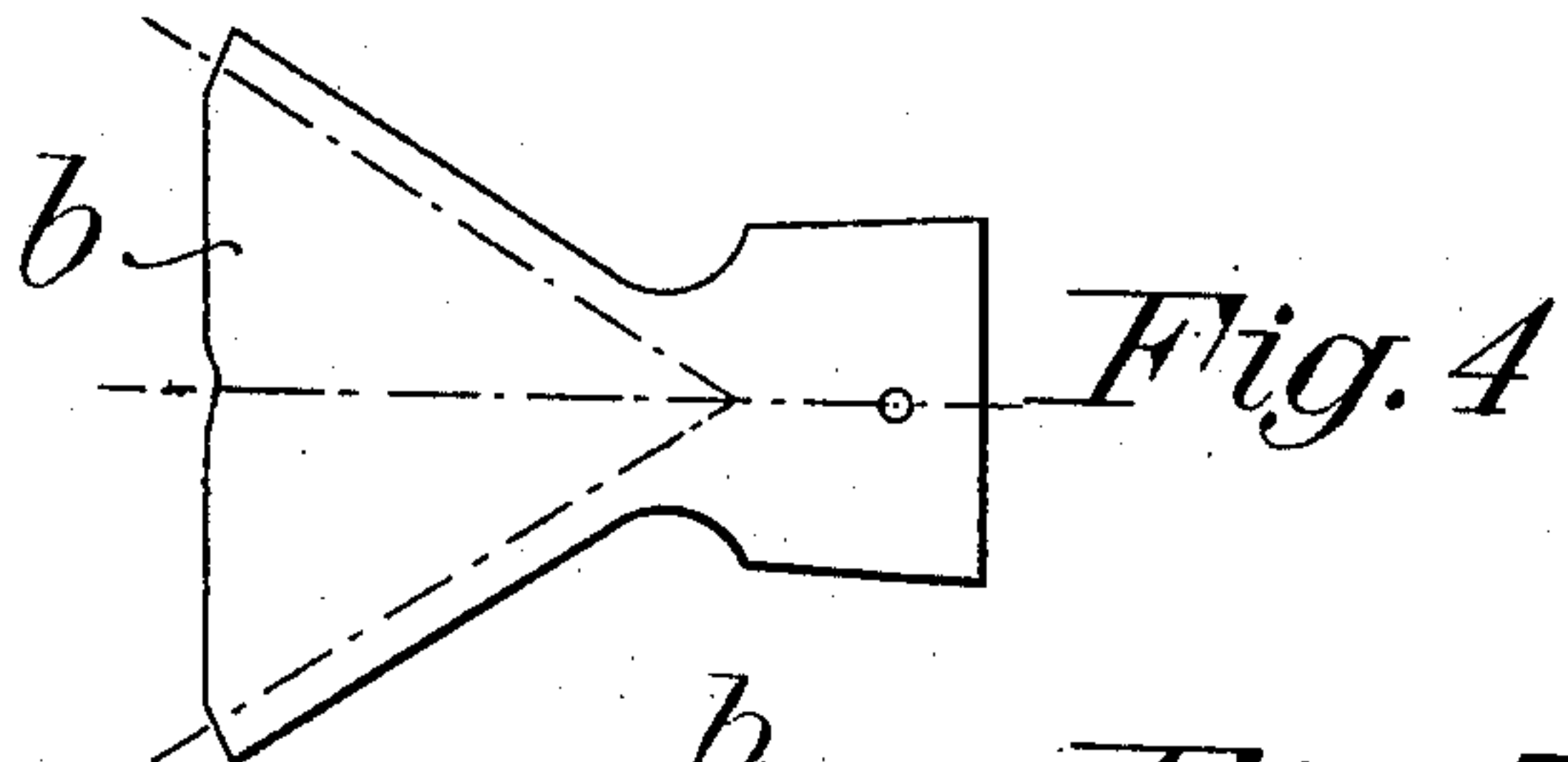
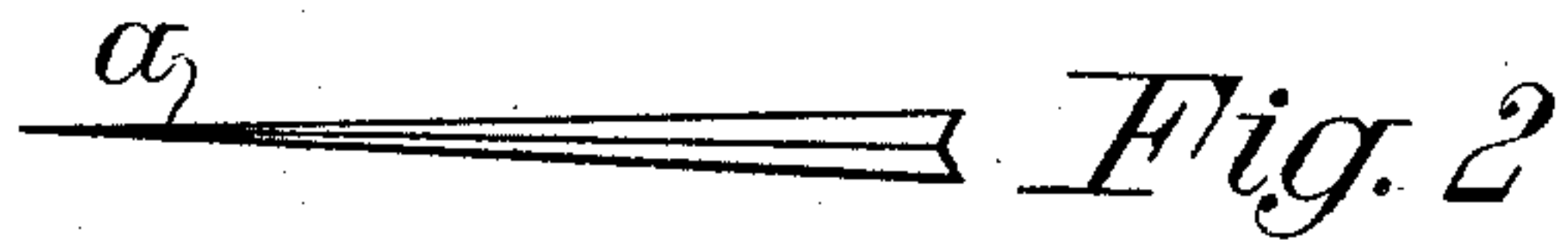
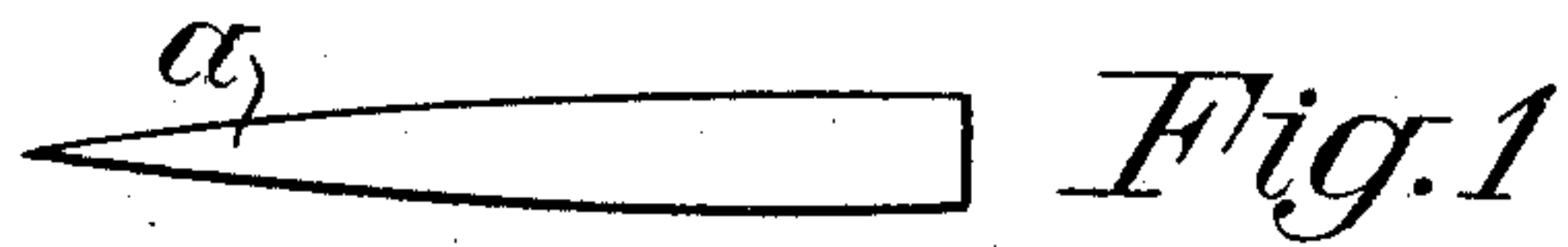


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PITCHFORK MADE OF PRESSED SHEET METAL.
APPLICATION FILED MAY 19, 1909.

967,854.

Patented Aug. 16, 1910.
2 SHEETS—SHEET 1.



Witnesses:

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2 SHEETS—SHEET 2.

Fig. 7

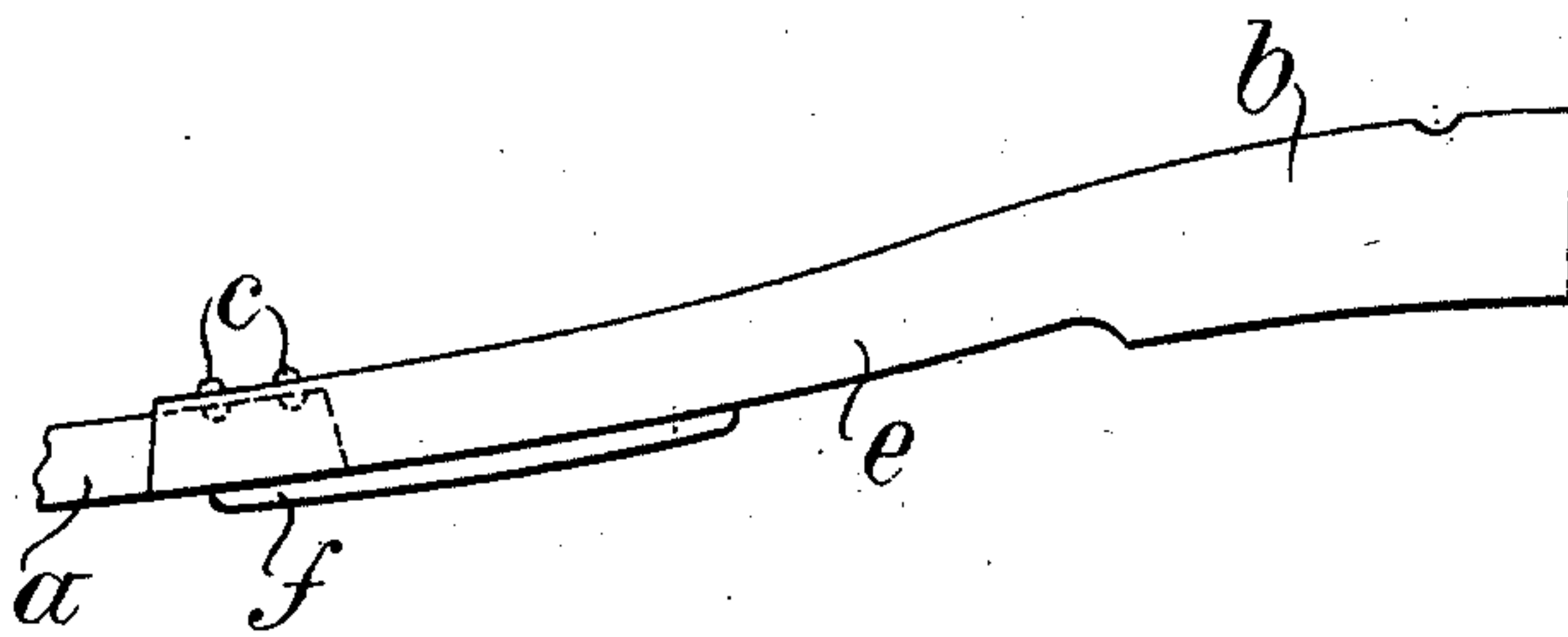
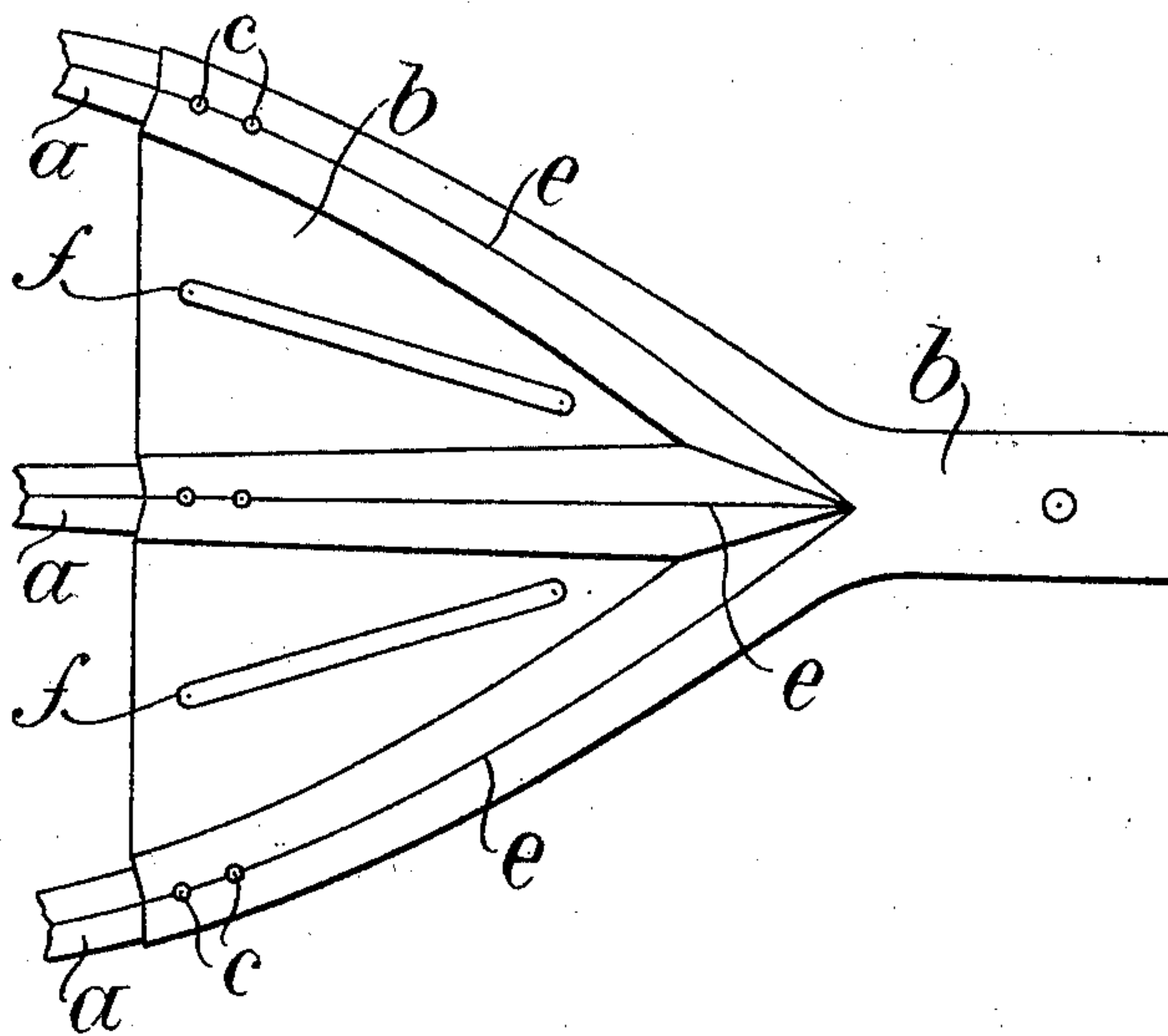


Fig. 8



Witnesses:

[Signature]
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By *James L. Norris*

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UNITED STATES PATENT OFFICE.

IGNAC SZALAI, OF ZALA-SZENT-GROTH, AUSTRIA-HUNGARY, ASSIGNOR TO THE FIRM OF VOGEL & NOOT, OF VIENNA, AUSTRIA-HUNGARY.

PITCHFORK MADE OF PRESSED SHEET METAL.

967,854.

Specification of Letters Patent. Patented Aug. 16, 1910.

Application filed May 19, 1909. Serial No. 497,078.

To all whom it may concern:

Be it known that I, IGNAC SZALAI, subject of the King of Hungary, residing at Zala-Szent-Groth, in Austria-Hungary, have invented certain new and useful Improvements in Pitchforks Made of Pressed Sheet Metal, of which the following is a specification.

This invention relates to a pitchfork, the prongs of which are made of separate pressed sheet-metal pieces and are connected with the rear portion of the pitchfork which is equally made of a separate piece of sheet metal. By this method a light and durable article is manufactured and by favorably shaping the cross-section of the prongs the dimensions of the pitchfork can be kept essentially below those of the pitch forks hitherto made chiefly of wood and which are therefore fragile, easily shrinking and splitting.

The method by which the improved pitchforks are manufactured consists in stamping from a metal plate, preferably a steel plate of suitable thickness blanks corresponding in their shape to that of the separate prongs and of the rear portion of the pitchfork. The blanks intended to form the prongs are pressed into suitable shape and simultaneously bent while the blank intended to form the rear portion of the pitchfork is rolled up at its narrow end into a socket for the reception of the handle, the opposite broader end of the same being pressed into cross sections similar to those of the prongs intended to be connected with this end of the blank. Finally the prongs are connected to the rear portion of the pitchfork in some suitable manner for instance by riveting, screwing, soldering or welding.

During the pressing operation the rear portion of the pitchfork can be provided with pressed in longitudinal ribs for stiffening the said rear part. The latter can also be provided with cut out gaps for the purpose of reducing the weight of the pitchfork.

The accompanying drawings show the separate parts of a pitchfork in the various phases of their manufacture and the finished pitch fork in two forms of execution by way of examples.

Figure 1 shows one of the stamped metal plates intended for the manufacture of the prongs. Fig. 2 shows a plan of the pressed prong, Fig. 3 a side elevation of the pressed

and bent prong. Fig. 4 is the separate stamped metal-plate intended to form the rear portion of the pitchfork. Figs. 5 and 6 show a side elevation and a plan of a pitchfork composed of the said parts. Fig. 6^a is a fragmentary plan of a structure wherein the stamped metal plate is provided with openings. Figs. 7 and 8 also show a side elevation and a plan of a modified form of execution of a pitchfork manufactured by the same method, the prongs being represented broken off.

The method of manufacture of the improved pitchfork will be described in the following paragraphs with reference to the drawings.

In the first place triangular metal strips *a* (Fig. 1) and the blank *b* (Fig. 4) intended for the rear portion of the fork are stamped out of metal plates, preferably of steel plates of suitable thickness. In the blank *b*, if desired, gaps *d* may be cut out (as shown in Fig. 6^a); this operation can be performed simultaneously with the stamping out of the contours of the blank.

The metal strips *a* are now pressed by suitable devices so as to form angular grooves (Fig. 2) or into any other shape and are simultaneously bent into the usual curved shape (Fig. 3). The plate *b* is rolled upon its narrow end into the shape of a socket appropriate to receive the handle, while in the broader part of the plate *b* several grooved impressions *e* (Fig. 6) are made having a cross-section similar to that of the fork-prongs, the number of said impressions corresponding to the number of the prongs, for instance in the described form of execution three such impressions are made. The prongs are then placed with their broader ends in the angular groove-shaped impressions *e* of the rear portion of the pitch fork and are rigidly connected with the latter in any suitable manner, for instance by rivets *c* (Figs. 5 and 6) by screws, by soldering or welding.

Simultaneously with the described operation or after it is finished ribs *f* may be pressed into the rear portion, such as are represented in the form of execution, Figs. 7 and 8. These Figs. 7 and 8 show also the connection of the prongs *a* with the rear portion of the fork by means of rivets *c*. The ribs *f* have for purpose to strengthen or to stiffen the pitchfork.

The described method presents the advantage of avoiding any waste of material so that no more material is employed than is absolutely necessary. This is due to the
5 circumstance that the improved pitch-fork is not made of one single piece, but of a separate stamped plate for the rear portion and of separate stamped metal-strips for each prong.

10 Claim.

A pitchfork consisting of a plurality of longitudinally grooved prongs made from separate sheet metal pieces, a sheet metal

rear portion also made from a separate piece and having prong-receiving grooves of the
15 same cross section as the prongs, and devices for fastening the rear portions of the prongs in the grooves.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit-
20 nesses.

IGNAC SZALAI.

Witnesses:

JOSEF RUBASCH,

ROBERT W. HEINGARTNER.