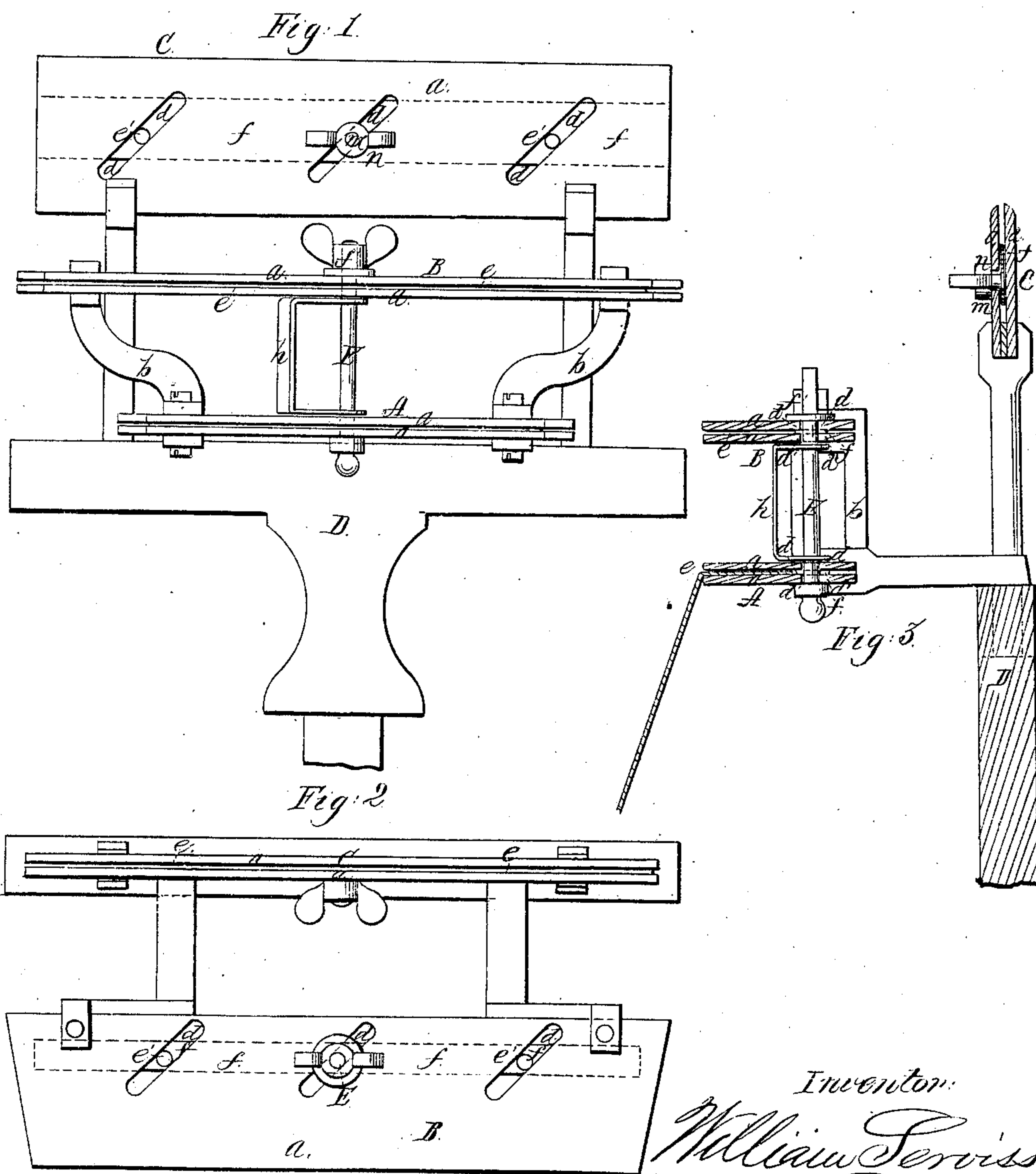


W. Serriss,
Making Sheet-Metal Vessels.
N^o 67,358. Patented July 30, 1867.



Witnesses: *J. M. Cornaby*
E. M. Reed

Inventor:
William Serriss
Wm Brown Combs
Att'y

United States Patent Office.

WILLIAM SERVISS, OF SIDNEY, OHIO.

Letters Patent No. 67,358, dated July 30, 1867.

IMPROVED APPARATUS FOR MAKING SHEET-METAL PANS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM SERVISS, of Sidney, in the county of Shelby, and State of Ohio, have invented certain new and useful Improvements in Apparatus for Making Sheet-Metal Pans; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a front view of an apparatus constructed according to my invention.

Figure 2 is a plan view of the same.

Figure 3 is a vertical transverse section of the same.

Similar letters of reference indicate corresponding parts in all the figures.

The object of this invention is to provide a means whereby the sides and ends of dripping-pans and similar articles of sheet metal may be bent and shaped with a greatly reduced outlay of time and labor as compared with that required in forming the same by hand in the ordinary manner; and the invention consists in the combination of clamping-plates with adjustable gauges, in such manner that the desired result is effectually secured. The invention further consists in a novel arrangement of the aforesaid gauges, whereby their position may be very readily changed, as required, in making pans or articles of different sizes.

To enable others to understand the nature and construction of my invention, I will proceed to describe it with reference to the drawings.

A, B, and C represent three sets of clamping-plates, each set being composed of two flat metal plates a , fixed at a distance apart slightly exceeding the thickness of the sheet metal from which the pan or article is to be formed. The sets A B are placed in a horizontal position one above the other, and are attached by arms, b , to the supporting-block or base D. The remaining set is secured vertically to upright arms c of the aforesaid base. One of the plates a of each of these sets is formed with three diagonal slots, d , below the central one of which, in the two horizontal sets in the other plate a thereof, is a corresponding oblique slot, shown at d' in fig. 3. Placed longitudinally in the space e , between the two plates a of each of the said sets is a flat strip, f , of metal, each end of which is provided with a short stud, e' , which projects into the adjacent slot d , the said studs serving to hold the strips f in place at the same time that they may be adjusted at a greater or less distance from the outer edges of the plates a , the said strips constituting gauges, the office of which will presently appear. The strips or gauges f of each of the horizontal sets A B are fitted to the opposite end portions of a vertical shaft, E, which extends through the central slots d d' thereof, and which is tightened to a fixed position when required by means of a suitable nut, f' , so as to hold the gauges at the desired distance from the outer edges of the plates a , the said gauges, when the shaft E is loosened, being readily moved to or from the said edges by a handle, h , attached to the shaft aforesaid. The adjustment of the gauge f of the upper or vertical set C being secured in a similar manner by means of a short screw, m , attached thereto, and projecting through the central slot d thereof, with its outer end furnished with a tightening-nut, n .

In using the apparatus, the gauge d of that set of clamping-plates best adapted by its size to the work to be done is adjusted at a distance from the edge thereof, equal to the desired width of the side or end, as the case may be of the pan, and the edge portion of the sheet-metal blank from which the pan or article is to be made is inserted into the space e of the said set with its edge against the gauge. The said blank is then bent downward to the required angle, as indicated in red outline in fig. 3, which being done, the other sides or ends are successively turned over in the same manner, thus bringing the blank into the shape required in the pan or article. When it is required to "wire" the edges of the said pan or article, such edges may be turned over for the reception of the wire in the same manner that the sides and ends are bent up, as just described, the guide f being of course brought nearer the edges of the plates a . Inasmuch as the several sets of clamping-plates may be made differing in size and with spaces a of different widths, the same apparatus may be very conveniently employed in making pans varying widely in size.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the two clamping-plates a , with the adjustable gauges f , substantially as and for the purpose specified.
2. The arrangement of the gauge f , between the clamping-plates a for operation substantially as herein set forth.

WILLIAM SERVISS.

Witnesses:

SAMUEL McCULLOUGH,
J. CAREY.