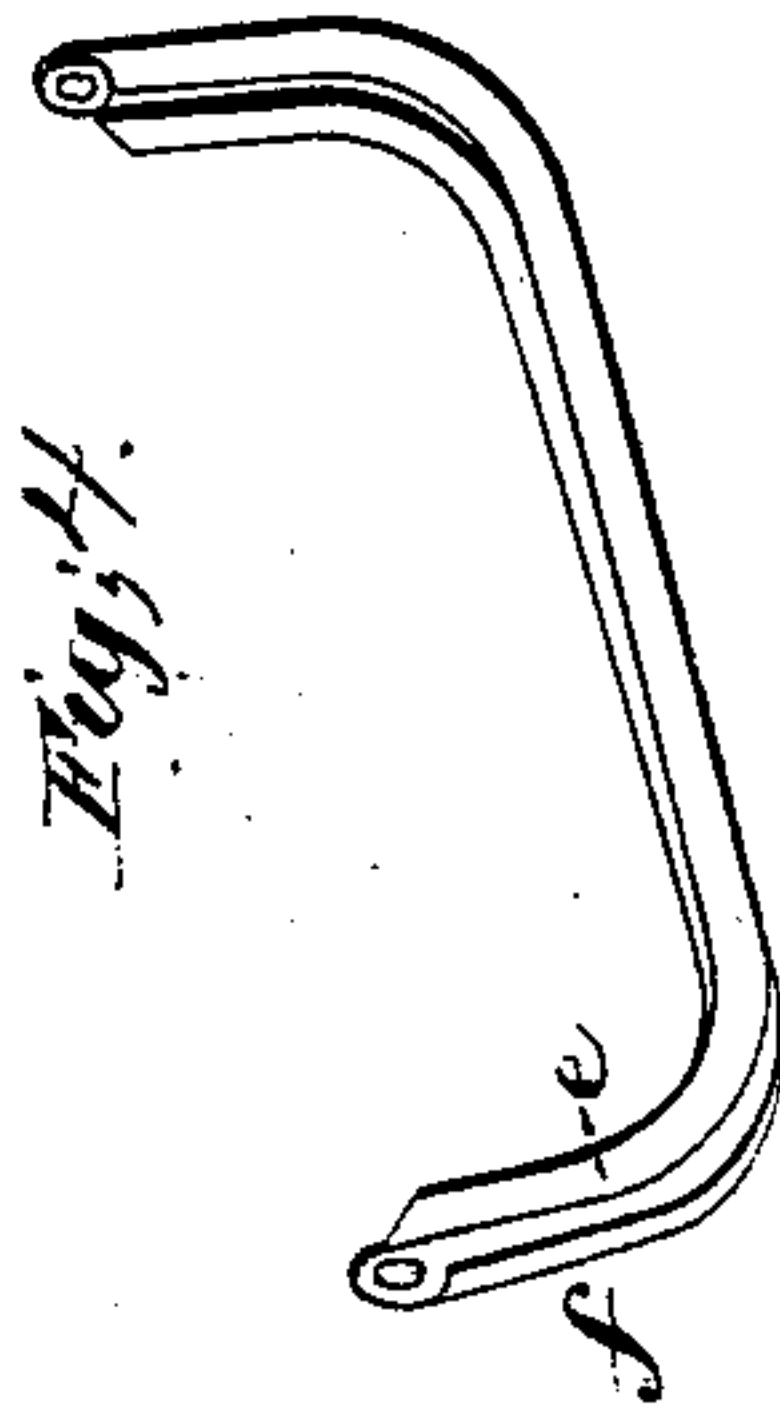
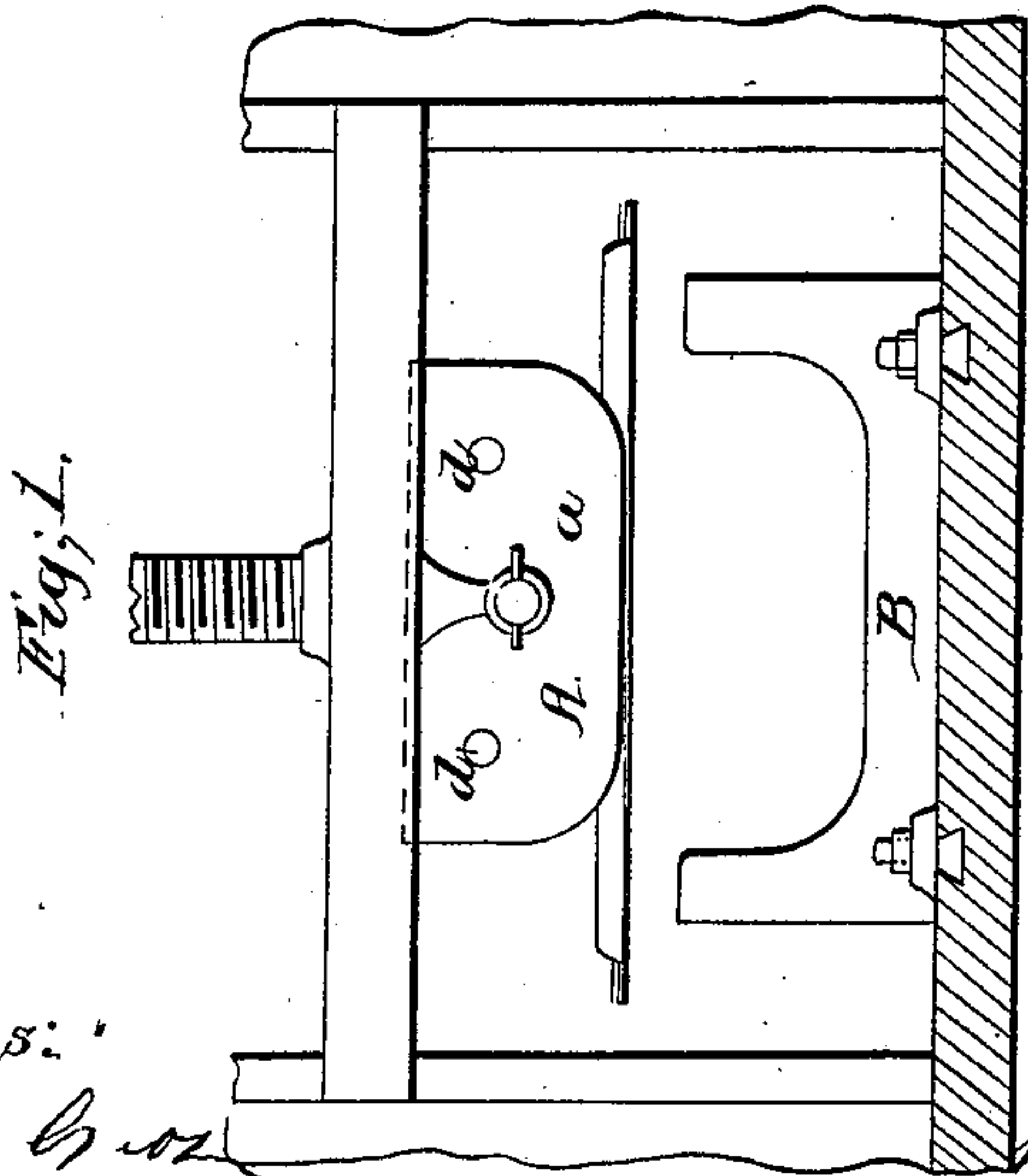
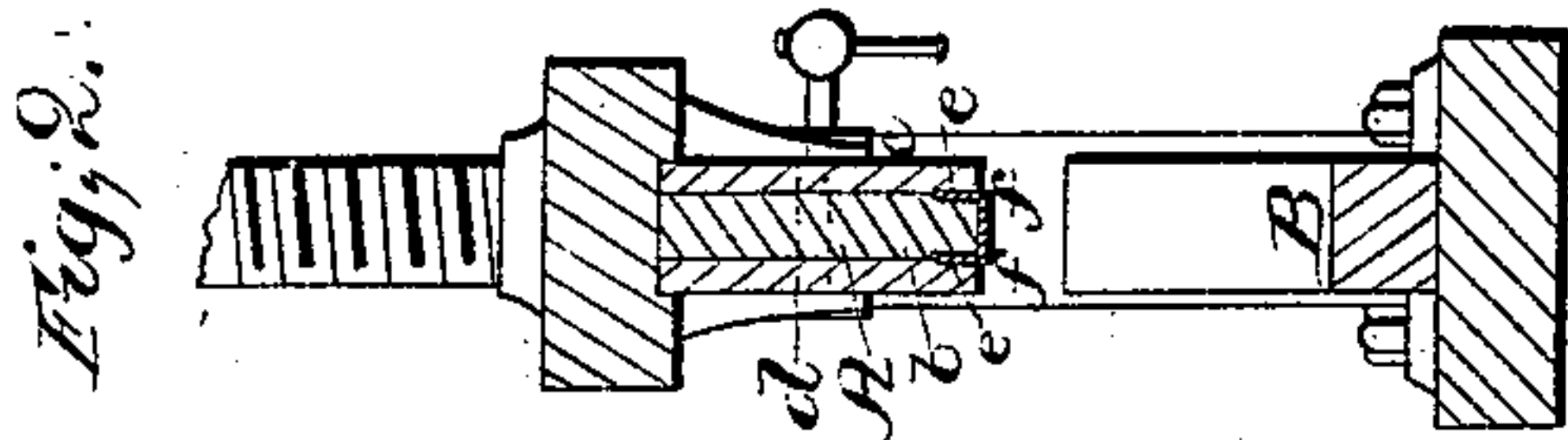


*C. H. Schubert.*

*Leather Worker's Tool.*

*N<sup>o</sup> 64,585.*

*Patented May 7, 1867.*



*Witnesses:*  
*Hermann G. ...*  
*W. Hauff*

*Inventor;*  
*Chas. H. Schubert*  
*By Santorrod & Hauff*  
*Attorneys.*

# United States Patent Office.

CHARLES H. SCHUBEUS, OF NEWARK, NEW JERSEY, ASSIGNOR TO SAMUEL LAGOWITZ AND ISADORE LEHMAN, OF THE SAME PLACE.

*Letters Patent No. 64,585, dated May 7, 1867.*

## IMPROVEMENT IN BENDING METAL.

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, CHARLES H. SCHUBEUS, of Newark, in the county of Essex, and State of New Jersey, have invented a new and useful Improvement in Tools for Bending Metal; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a front elevation of this invention.

Figure 2 is a transverse vertical section thereof.

Figure 3 is a face view of the punch or male part of said tool.

Figure 4 is a perspective view of a satchel-frame bent by means of this invention.

Similar letters of reference in said views indicate corresponding parts.

This invention relates to a tool which is intended to bend angular or L-shaped pieces of sheet-metal or hoop-iron, such, for instance as used for satchel-frames or travelling-bag frames. The male part of said tool, or the punch, consists of two jaws, which are clamped to a centre-piece, and which are so shaped that a kerf or kerfs are left between them and said centre-piece, rendering them capable of receiving one or more angular or L-shaped pieces of sheet metal intended for the jaws of a satchel-frame, before or after their ends have been fastened together, and that said piece or pieces can be secured in the punch and forced into the die or female part of the tool, and that by these means said angular or L-shaped pieces are bent cold without wrinkling, and with little trouble or loss of time.

A represents the male part or punch, and B the female part or die of my tool. Said punch is composed of three parts, *a*, *b*, *c*, (see fig. 2,) of such a shape that the same, when put together, will fit into the satchel-frame or other piece of work to be produced, and that narrow cavities or kerfs, *k*, are left between the edges of said parts capable of receiving those parts of the metal which are to be bent edgewise, and which are designated by the letter *e* in the drawings, while those parts which are to be bent flatways are designated by the letter *f*. The side-pieces or jaws *a* *c* of the punch are held in position when attached to the centre-piece *b* by steady-pins *d*, or by any other suitable means, and after the angle-irons to be bent have been adjusted in the kerfs of the punch, the jaws *a* *c* are pressed up against the centre-piece *b* by a screw-clamp or any other suitable means, as indicated in figs. 1 and 2 of the drawing, and when the punch has been thus adjusted, the parts *e* of the irons to be bent are held in the kerfs *k* between the jaws and the centre-piece of said punch. In practice, the clamp, which serves to press the jaws of the punch up against the centre-piece, will be so arranged that the same can be readily secured to the cross-head of a press, as indicated in red outlines in figs. 1 and 2 of the drawing. The female part of the tool, or the die B, is composed of one solid piece of cast iron, or other suitable material, which is hollowed out so as to correspond to the shape of the satchel-frame or other piece of work to be produced. This die is fastened under the punch in the proper position, and by forcing the punch down, the irons secured in the kerfs thereof are gradually bent, and while being bent those portions of the parts *e* of said irons which project beyond the punch in fig. 1 are gradually forced into the kerfs, and the operation of bending said L-shaped or angular irons is effected without allowing any part thereof to wrinkle, the wrinkling being prevented by the kerfs *k*, which receive the parts *e* of the irons while the same are being bent.

In the drawings I have represented my tool as the same is arranged for bending simultaneously the two jaws of a satchel or bag-frame, but it is obvious that said tool may be provided with one or more kerfs, and one or more pieces of metal may be bent at one and the same operation.

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

The punch A, composed of the side-pieces or jaws *a* *c*, and centre-piece *b*, in combination with the die B, constructed and operating substantially as and for the purpose set forth.

The above specification signed by me this thirty-first day of December, 1866.

CHARLES H. SCHUBEUS.

Witnesses:

OTTO GSANTNER,  
LOUIS GREINER.