J. SCHWARTZ.

Guttering-Tongs.

No. 139,198. Patented May 20, 1873.

FIG.1.

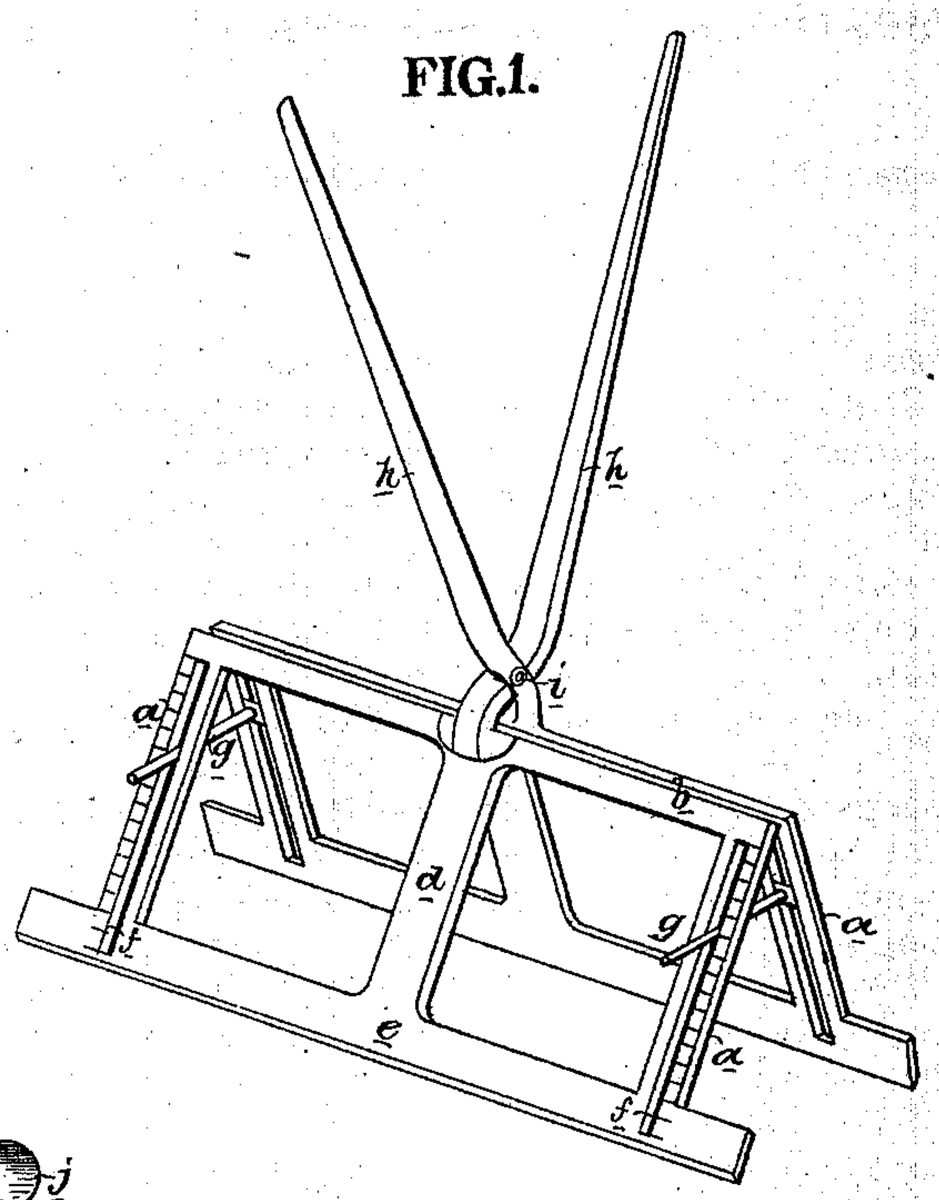


FIG.3.

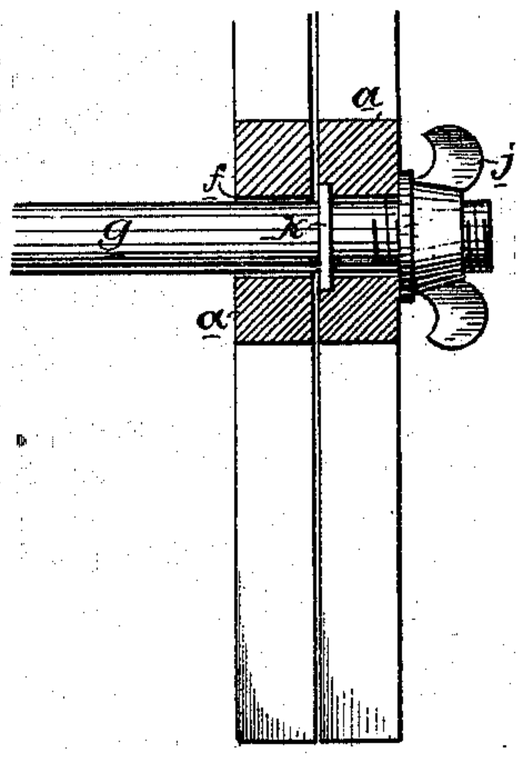
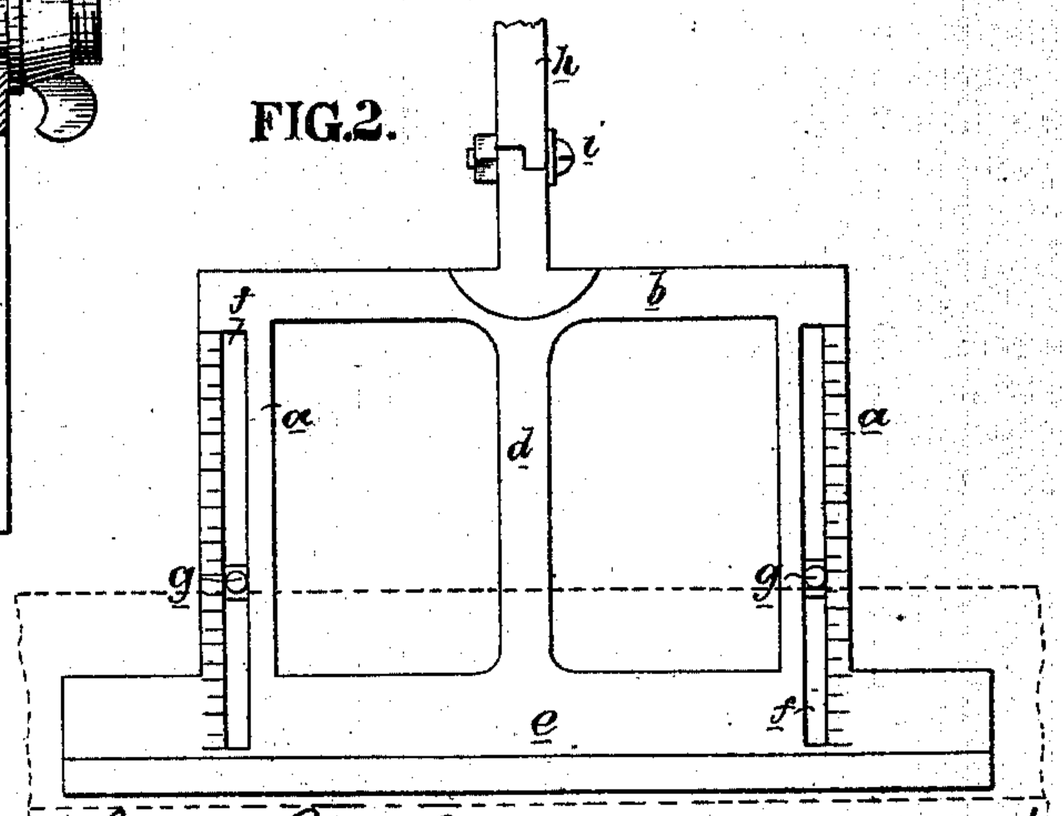


FIG.2.



WITNESSES. Thomas. Jno. McElgain
Harry Smith

John Schwartz
by his Attys.
Howson and Sons

UNITED STATES PATENT OFFICE.

JOHN SCHWARTZ, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HENRY SCHWARTZ, OF SAME PLACE.

IMPROVEMENT IN GUTTERING-TONGS.

Specification forming part of Letters Patent No. **139,198**, dated May 20, 1873; application filed October 26, 1872.

To all whom it may concern:

Be it known that I, JOHN SCHWARTZ, of Philadelphia, Pennsylvania, have invented Improved Guttering-Tongs, of which the following is a specification:

The object of my invention is to improve the ordinary guttering-tongs, having adjustable guides, by so arranging the latter that the edge of the metal to be bent cannot escape contact with the same.

The tongs consists of legs *a a*, connecting-piece *b*, center bar *d*, and blade *e*, all welded together to form a frame much lighter in weight than and as strong as the solid blocks hitherto used.

Into longitudinal slots *f f* in the legs *a* on one blade of the tongs extend stop-pins *g*, which project from the other blade, and may be adjusted to determine the position of the edge of the plate to be bent.

The sheet-metal plates are bent, as usual, by clamping the same between the blades of the tongs, which are held tightly together and against the opposite sides of the plate by means of the handles *h h*, the latter, with the blades, being simply turned laterally until the flanged or turned-up portion of the plate has been bent to the required angle.

As the stop-pins extend completely across from one blade to the other, whatever may be their distance apart, the edge of the plate must find its bearing on the pins, and cannot escape the same, as in ordinary tongs, where narrow gages are secured only to one blade.

The width of the flange or bend, in inches and fractions of an inch, can also be determined by means of the graduations marked upon the slotted legs, which serve as guides in adjusting the stop-pins.

The stop-pins may be secured to the legs in any suitable manner; but I prefer to employ the thumb-nut *j* and collar *k*, illustrated in the enlarged section, Figure 3, the said shoulder being squared and adapted to a longitudinal recess in the leg, in order to prevent the pin from turning.

I claim as my invention—

1. The combination, with one blade of the tongs, of independently adjustable stop-pins *g*, extending to and through elongated slots in the opposite blade, as set forth.

2. The combination, with the blade and its elongated slots *f*, of pins *g*, having external thumb-nuts *j* and collars *k*, fitting recesses at the inner side of the blade.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN SCHWARTZ.

Witnesses:

THOMAS MCILVAIN,

HUBERT HOWSON.