

*A. W. Sangster,
Sheet-Metal Die.*

N^o 37,876.

Patented Mar. 10, 1863.

Fig. 3.

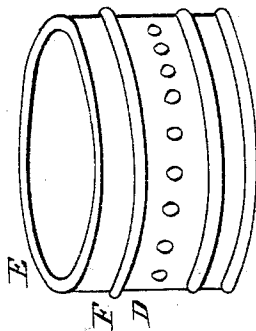


Fig. 2.

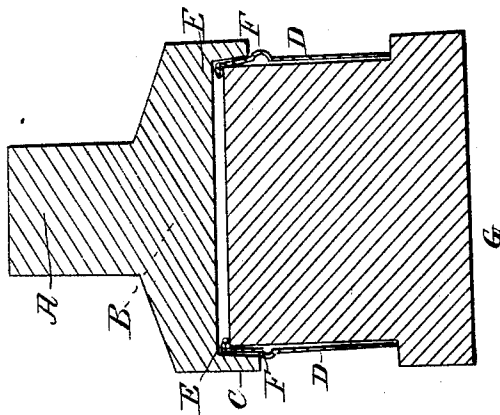
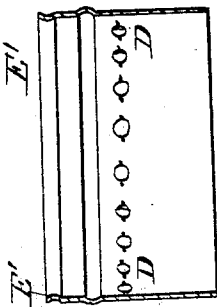


Fig. 1.



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UNITED STATES PATENT OFFICE.

AMOS W. SANGSTER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN DIES FOR TURNING FLANGES.

Specification forming part of Letters Patent No. **37,876**, dated March 10, 1863.

To all whom it may concern:

Be it known that I, AMOS W. SANGSTER, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Machine for Forming the Flanges on Lantern or other Rims; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

The nature of my invention consists in an upper and lower die, such as is represented in Figure 2 of the accompanying drawings, for the purpose of forming a doubled flange on lantern-rims, with a rounded or smooth edge on the inner side of the flange and rim, thus avoiding a cutting-edge, which would cut or otherwise injure the hands while cleaning the inside of the lantern to which said rims may be attached, and at the same time forming said rim nearer to a circle than it could be done by hand.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Fig. 2 in the accompanying drawings represents a vertical section of the machine. Fig. 1 represents a lantern-rim before it has been subjected to the operation of the machine; and Fig. 3 represents a rim after it has been finished in said machine.

The same letters in Figs. 1, 2, and 3 represent similar parts in each.

In Fig. 2, B represents the upper die, which is connected to the press or drop with a screw

at the shank A. This die moves vertically up and down while the machine is being operated.

G is the base or bottom die, which is fast to the press by screws and is stationary.

E' E' represent the flange (in Fig. 1) partially formed or swaged, and ready for the finishing operation, as shown in Fig. 2. This swaging is done by the common swaging-machine, such as are generally used by tin-smiths.

Fig. 3 represents the rim with the flange pressed down and finished.

The machine is operated as follows: The upper die, B, is raised upward far enough to admit of the rim D, as represented in Fig. 1, being slipped down over the lower die, G, which it (the rim) then surrounds. The die B is then brought down (until its rim C slips over the rim on the die G) and doubles or presses the flange down, as shown at E E, and at the same time the bottom surface of the rim or projection C on the die B presses against the projection F F on the lantern-rim and presses it slightly outward, which gives exactly the same distance between the flange E E and the projection F F in every rim made.

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

The dies B and G, constructed and operated as and for the purpose set forth.

AMOS W. SANGSTER.

Witnesses:

N. D. MENOAR,
JAMES MENOAR.