(No Model.)

## H. GROM.

PROCESS OF SPINNING SHEET METAL.

No. 264,150.

Patented Sept. 12, 1882.

B Pig. 1

B Eig. 2

Witnesses Mm a. Wood. Rolleadman

Anventor Henry Grown My Horall Hannis

## UNITED STATES PATENT OFFICE.

HENRY GROM, OF NEWARK, NEW JERSEY.

## PROCESS OF SPINNING SHEET METAL.

SPECIFICATION forming part of Letters Patent No. 264,150, dated September 12, 1882.

Application filed August 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY GROM, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in the Process of Spinning Sheet Metal, of which the following is a specification.

My invention relates to an improved process of spinning sheet metal, whereby a greater variety of articles may be made, and in forms or shapes not possible to spin by any former process. Formerly spinning has been done on a split chuck that might be taken out in sections after the shell has been produced; but many shapes would not allow of taking out to be made in two or more parts, and then spun or soldered together; but I make all varieties of shapes from one piece of metal; and my invention consists in the process substantially as hereinafter set forth.

Figure 1 shows an article spun up from one piece of metal, having the form on which it has been spun yet in it. Fig. 2 shows the article with the form removed.

In my process I make a form of the desired 25 shape. This I may get, in the first place, by turning it out of wood or metal for a pattern, or by taking for a pattern any article that has been spun in two or more pieces; and from this pattern I cast forms in soft metal, such 30 metal as is fusible at a low temperature. Over these forms A, holding them in a suitable chuck in the ordinary way, I spin the shell B; and when I have spun up a desired number I subject them to heat, either in an oven or a metal 35 bath, or otherwise, and melt out the soft-metal forms, and this does not disturb the shells, as they require a much higher temperature to melt them.

I claim-

The process of spinning sheet-metal articles, consisting in working them over soft-metal forms, and then melting out the said forms, substantially as and for the purpose specified.

HENRY GROM.

Witnesses:

HORACE HARRIS, FRANK WILLCOX.