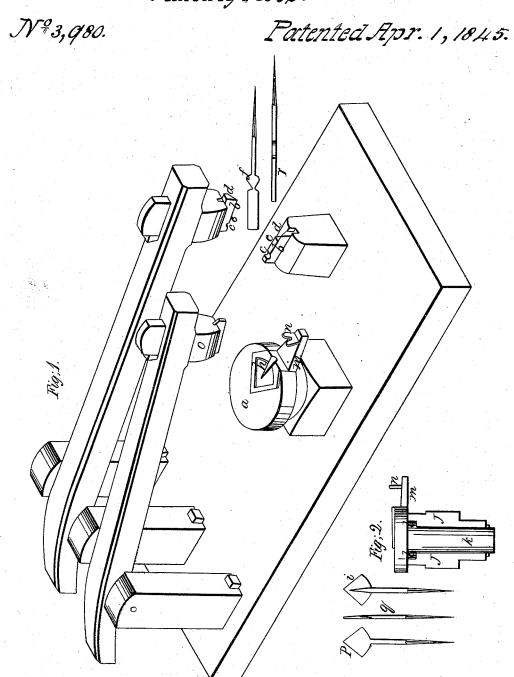
## IV. Brand.

## Making Hoes.



## UNITED STATES PATENT OFFICE.

NATHAN BRAND, OF LEONARDSVILLE, NEW YORK.

SWAGE, DIE, &c., FOR MANUFACTURING HOE-NECKS AND OTHER ARTICLES.

Specification of Letters Patent No. 3,980, dated April 1, 1845.

To all whom it may concern:

Be it known that I, NATHAN BRAND, of Leonardsville, in the county of Madison and State of New York, have invented a new 5 and useful Rotary Trip or Till Hammer-Stock for Padding Hoe-Necks and for other Purposes; and I also hereby declare that the following is a full, clear, and exact description thereof, reference being had to the actompanying drawings, making part of this specification, in which—

Figure 1 is a perspective side view of the apparatus for making hoe necks. Fig. 2 is an inside longitudinal sectional view of the

15 rotary stock (a).

The nature of my invention consists in the employment of the dies (b b) having semicircles (c c) at one end for rounding the iron after it is drawn from the bar on that porston of the dies marked (e e) which is constructed in the usual form. The end of the dies opposite the semicircle and on the back side are brought to an edge on an angle of forty five degrees as seen at (d d). This portion of the dies is for cutting the neck from the bar and forging it in the required shape as represented at (f). The die (h) has a depression on its upper surface of the required depth and form, and swages the pad as seen at (i), sectional back view, and is attached to the upper part of the rotary stock (a). The rotary stock consists of a cylinder as seen at the longitudinal sectional

view Fig. 2 (J J). This receives the axle (k) shouldered as represented at  $(l\ l)$ , the 35 upper part of which has an arm or nut  $(m\ m)$  projecting parallel with the upper surface of the axle near the outer end and on the upper surface of the arm. Standing at right angles with it is a fork like projection  $(n\ n)$ , Figs. 1 and 2, in the crotch of which the shank of the hoe neck or other article to be padded or plated rests; and by which a rotary motion is given to the axle and the required portion of the die (h) is 45 brought under the hammer (o).

(P) represents a front or face view of the hoe neck as seen in the back view (i). (q) is a side edge view of the same. (r) a side or edge view of the bar as forged and cut 50

and seen at (f).

What I claim as my invention and desire

to secure by Letters Patent is—

1. The combination of the die (h) with the rotating stock for the purpose and in 55 the manner described.

2. I also claim composing the die (b) of the flat face (e) the groove (e) and the cutter (d) as described so as to perform with the same instrument the three operations of 60 hammering, rounding and cutting.

NATHAN BRAND.

Witnesses:

Dennis Hardin, Erastus S. Fitch.