

H. WATERS.
Guide for Rolling Dies.

No. 48,466.

Patented June 27, 1865.

Fig. 1.

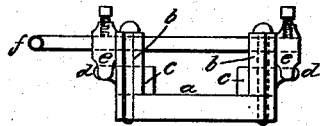


Fig. 2.

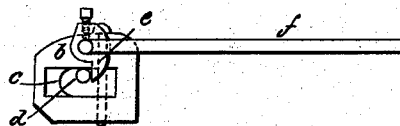
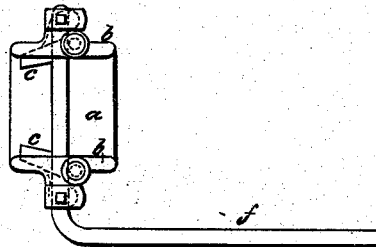


Fig. 3.



Witnesses:

W. Crosby
Kramer Gould

Inventor:

Henry Waters

UNITED STATES PATENT OFFICE.

HERVE WATERS, OF NORTHBRIDGE, MASSACHUSETTS.

IMPROVED GUIDE FOR ROLLERS.

Specification forming part of Letters Patent No. 48,466, dated June 27, 1865.

To all whom it may concern:

Be it known that I, HERVE WATERS, of Northbridge, in the county of Worcester and State of Massachusetts, have invented an Improved Guide for Rollers; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The object of this invention is to insure the proper guidance of a bar or blank to the action of the rolls of a rolling-mill, so that said bar or blank shall retain the same angle in the direction of its length to the acting surfaces of the rolls, whatever may be its variation in width; and the invention consists in a self-adjusting guide or guides having an adaptation to the varying width of the bar or blank being rolled, preventing said bar or blank from all lateral or swinging motion, and thereby insuring its correct movement between the acting surfaces of the rolls.

Figure 1 represents an end elevation, Fig. 2 a side elevation, and Fig. 3 a plan, of this guide.

a denotes the shelf or table, to be placed in the horizontal plane of the contiguous surfaces of the rolls.

b b are two uprights to the same, the bar to be rolled being laid upon this shelf and between these uprights or walls as it is presented to the rolls. To each of these uprights a swing-piece, *c*, is jointed, so as to be capable of swinging inward, and upon the outer face of each of these swing-pieces is a projection or

pin, *d*, the two pins being acted upon simultaneously by the short arm *e* of a bent lever having fulera in the uprights *b*, and having its long arm or handle *f* extending to the rear, as seen in Figs. 2 and 3. As the bar or blank is carried up to the rolls the weight of the handle causes the arms *e* to act on the swing-pieces *c* and carry their adjacent ends into contact with the opposite edges or sides of the bar, and as the rolls bite upon the bar the operator presses down the handle, thereby keeping the swing-pieces in contact with the bar as it progresses, however its width may vary, effectually counteracting the tendency of the bar to sway laterally. The two simultaneously-acting swing-pieces thus form, in connection with the surface *a*, a self-adjusting guide for the bar under the action of the rolls.

When thin blanks or bars are to be rolled the lower edge of the inner face to each guide may be chamfered a little to cause the guides to slightly overlap the edges of the blank, holding it down to the surface *a*, as well as guiding it laterally.

I claim—

A self-adjusting roller-guide constructed to operate substantially as set forth.

In witness whereof I have hereunto set my hand this 24th day of April, A. D. 1865.

HERVE WATERS.

Witnesses:

J. B. CROSBY,
FRANCIS GOULD.