(No Model.)

L. CHAPMAN.

GUIDE FOR ROLLING MILLS.

No. 388,121. Patented Aug. 21, 1888.

Fig. 1

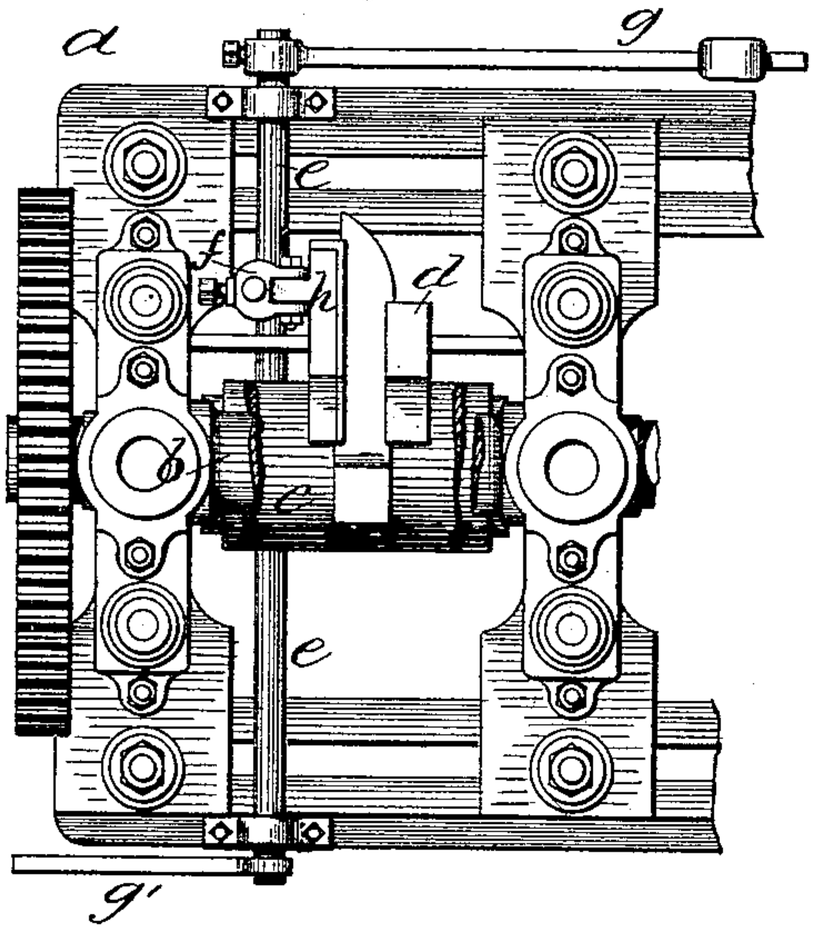


Fig. 2

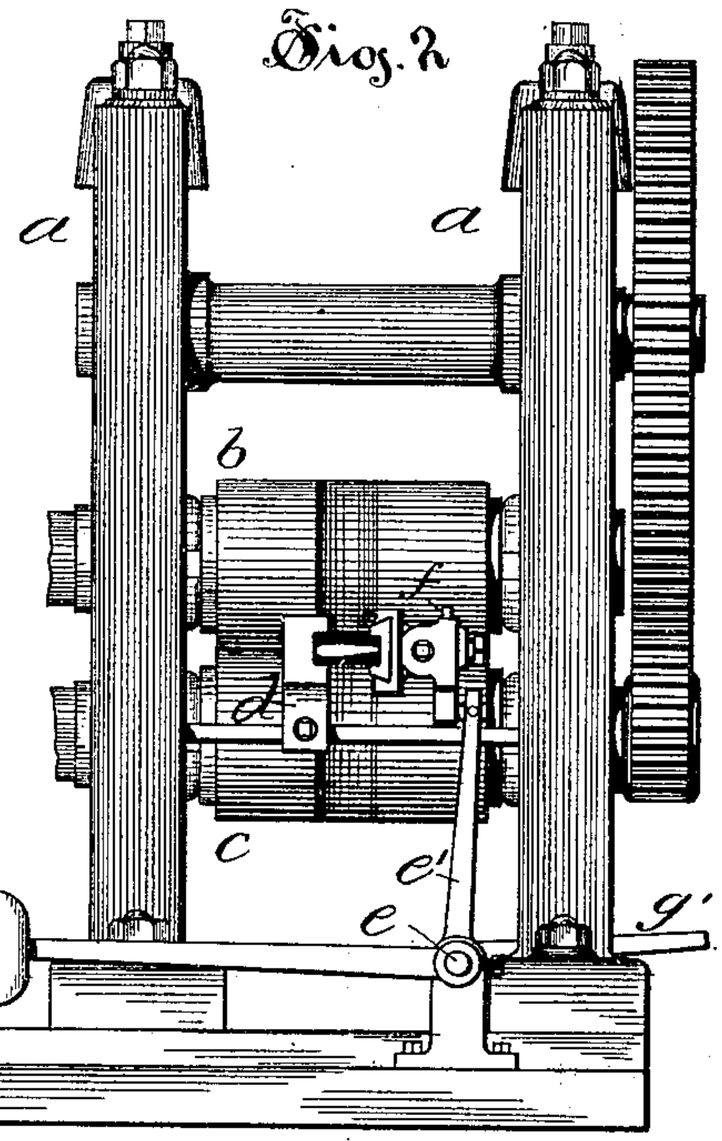


Fig. 3

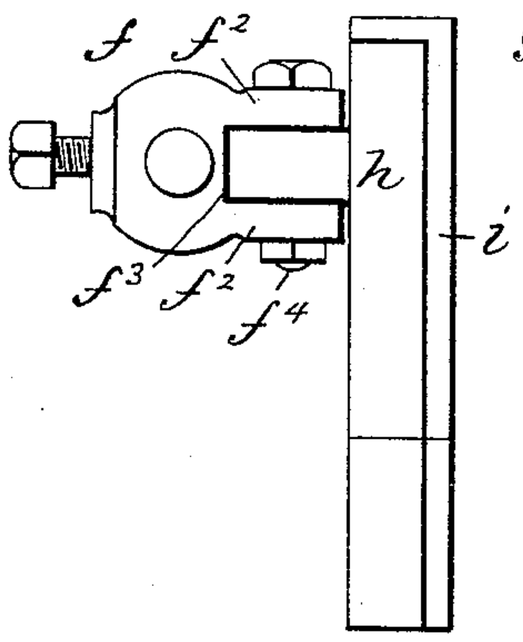


Fig. 4

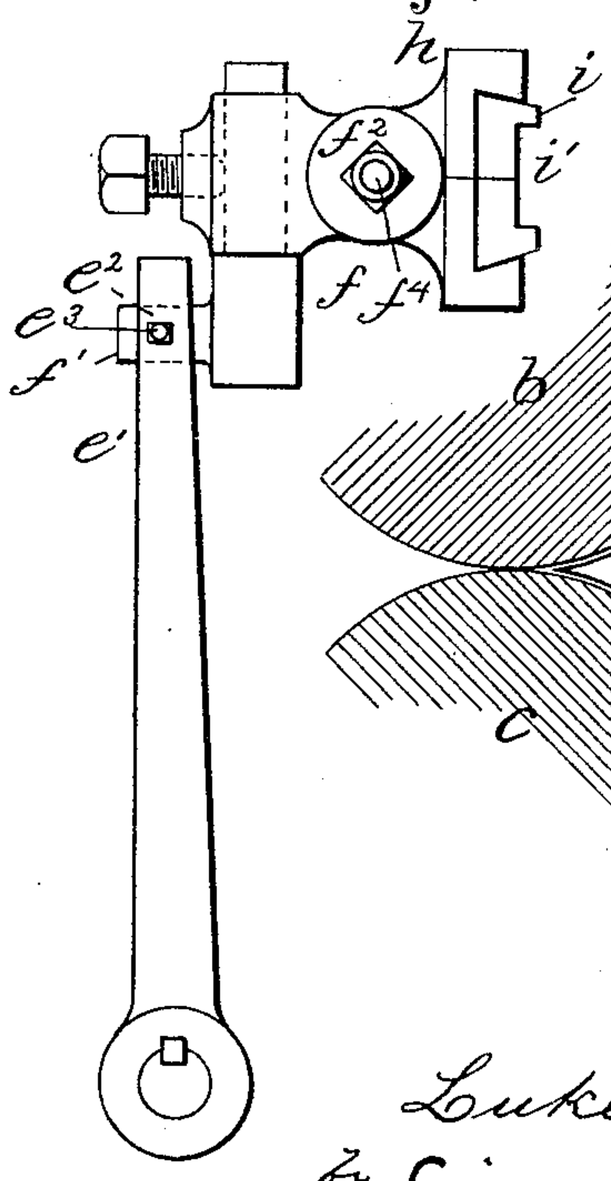
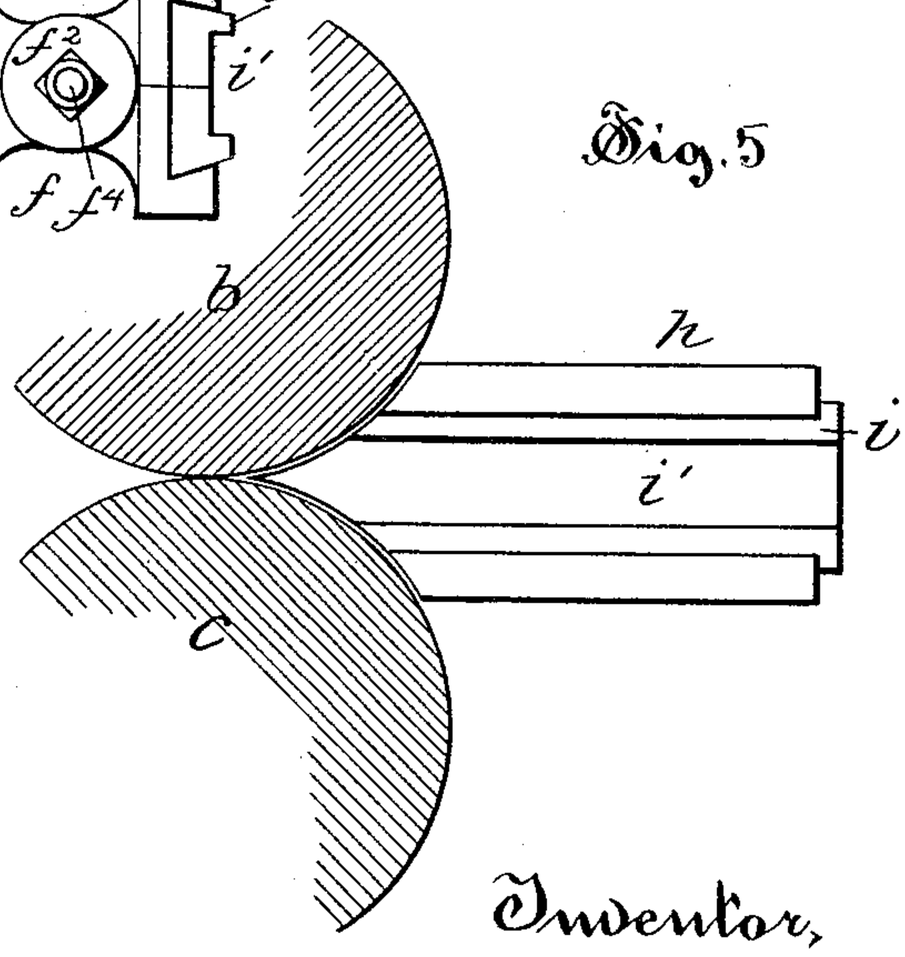


Fig. 5



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UNITED STATES PATENT OFFICE.

LUKE CHAPMAN, OF COLLINSVILLE, CONNECTICUT, ASSIGNOR TO THE COLLINS COMPANY, OF SAME PLACE.

GUIDE FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 388,121, dated August 21, 1888.

Application filed May 31, 1888. Serial No. 275,674. (No model.)

To all whom it may concern:

Be it known that I, LUKE CHAPMAN, of Collinsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Guides for Rolling-Mills, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

My invention relates to the class of devices that are used in rolling-mills to aid the workman in guiding a blank as it is fed between the rolls, and this improvement is especially adapted for use in the rolling of blades of large knives, such as machetes.

My invention consists in the combination, with a pair of rolls, of the fixed guide located adjacent to the rolls and in a plane passing between the adjacent faces of the rolls, and an adjustable movable guide of peculiar construction; and it further consists in details of the adjustable guide and in the combination of the same with the other parts, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of part of a set of rolls, showing my improvement attached, the top roll being removed or broken away. Fig. 2 is a back view, in elevation, of the set of rolls. Fig. 3 is a top view, on an enlarged scale, of the guide. Fig. 4 is a view in elevation, on an enlarged scale, of the guide. Fig. 5 is a face view of the blade-guide, and in cross-section of the rolls.

In the accompanying drawings, the letter *a* denotes the frame in which a set of rolls, *b c*, is mounted and arranged in the usual manner, the said rolls having the usual driving mechanism that causes them to turn in opposite directions, so as to draw through between them an article the end of which is inserted between their meeting faces. On the back side of the rolls is secured a fixed guide, *d*, the end of which is held quite near the rolls, and is cut to conform to the cross-sectional shape of the rolls, so as to enable the guide to perform its function and direct the blank until it has been introduced between the rolls, and also to control it while it is being fed through the rolls.

On the rock-shaft *e*, supported in bearings fast to the base of the frame or to the floor, is borne an upright arm, *e'*, terminating in the adjustable guide *f*. On one end of the rock-shaft is a weighted lever, *g*, that tends, normally, to press the guide *f* over toward the fixed guide, while on the opposite end of this rock-shaft there is arranged a lever-handle, *g'*, so as to enable the workman, who stands upon the front side of the rolls, to operate the adjustable guide and throw it away from the fixed guide.

In the upper end of the arm *e'* is formed a horizontal socket, e^2, in which is fitted the shank *f'* of the guide, the clamp-screw e^3 serving to hold this shank firmly in the socket in any desired position as to lengthwise adjustment. An upright part of the guide extends at right angles to this shank, and between the ears f^2 has a vertical slot, f^3, in which is located a flat projection from the head-block *h* of the guide, this head-block being secured to the body part of the guide by means of a bolt and nut, f^4. The head-block of the guide bears a face-piece, *i*, that is preferably of hardened metal, and is securely held in a socket in the block. This face-piece has a recess, *i'*, in its bearing-face, and it conforms in length and general outline to the fixed guide.

In the operation of my improvement the workman holding a blank that has to be subjected to alternate edgewise and flatwise rollings in a pair of tongs passes it between the rolls through the opening and from the front side, and holds it with one edge against the fixed guide, throwing, by means of the lever *g'*, the adjustable guide against the opposite edge, so that the blank is held and guided on its edges while it is being operated upon flatwise by the rolls that grasp it and move it toward the workman—that is, to the front of the rolls. In the rolling of successive blanks the guides are apt to get worn on the face; but to prevent this I make use of the devices for both horizontal and vertical adjustment of the adjustable guide, and this enables me to quickly set the guide *f* so as to counteract this tendency to groove the face of the guides, or to present an ungrooved portion of the face-plate to the edge of the blank.

I claim as my invention—

1. In combination with a pair of rolls, the fixed guide located adjacent to the rolls and in

a plane passing between the adjacent faces of the rolls, and the adjustable guide borne on an arm rising from a rock-shaft held in bearings adjacent to the rolls, all substantially as described.

2. The combination, with a pair of rolls, of the fixed guide located adjacent to the rolls and in a plane passing between the adjacent faces of the rolls, the rock-shaft pivoted in bearings adjacent to the rolls and having an upright arm with a transverse socket in which is clamped a shank projecting from the movable guide, the movable guide having a shank, the head-block pivoted to the body of the guide and vertically adjustable on the shank, the head-block having a head-piece with a socket in the face, all substantially as described.

LUKE CHAPMAN.

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