

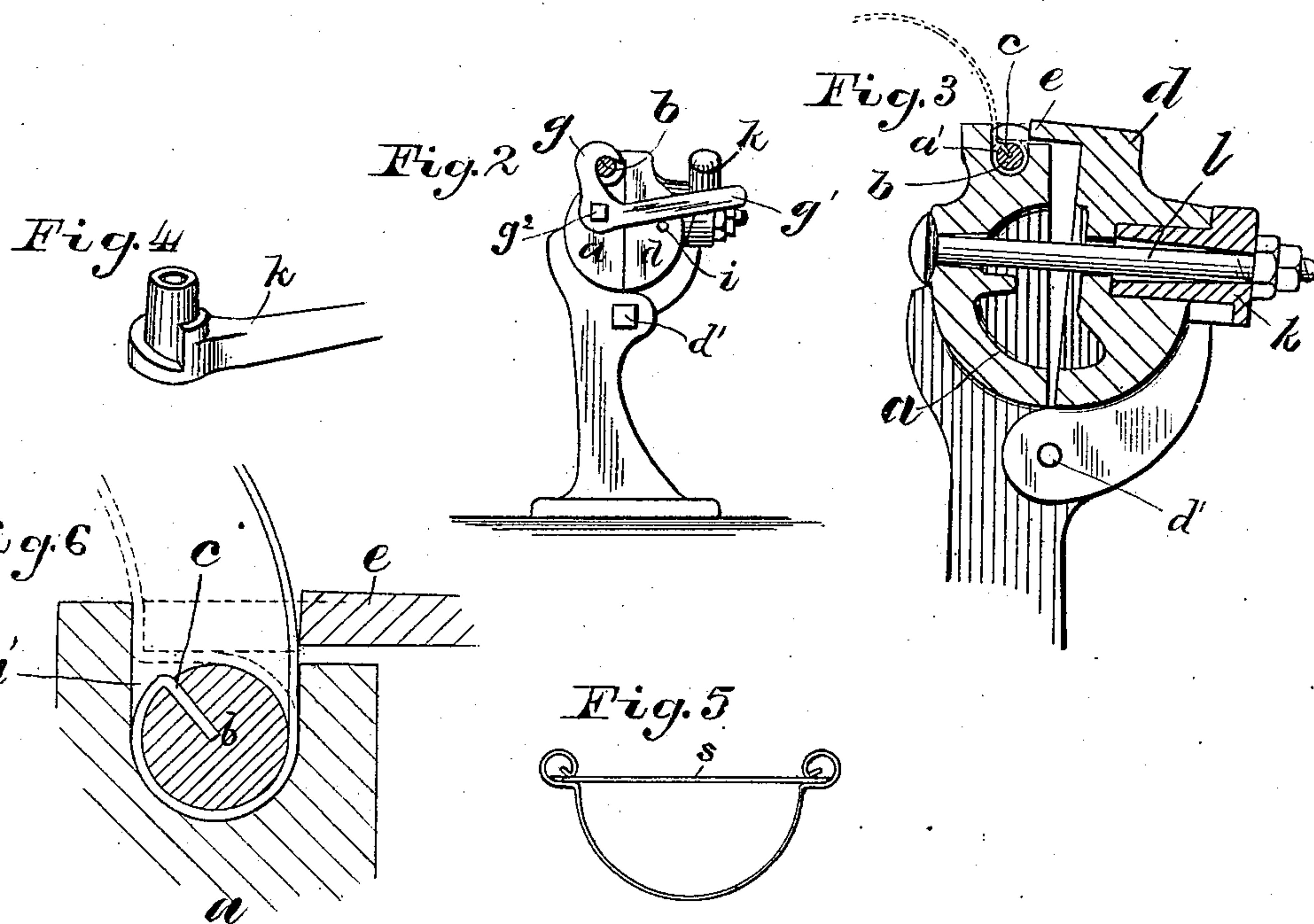
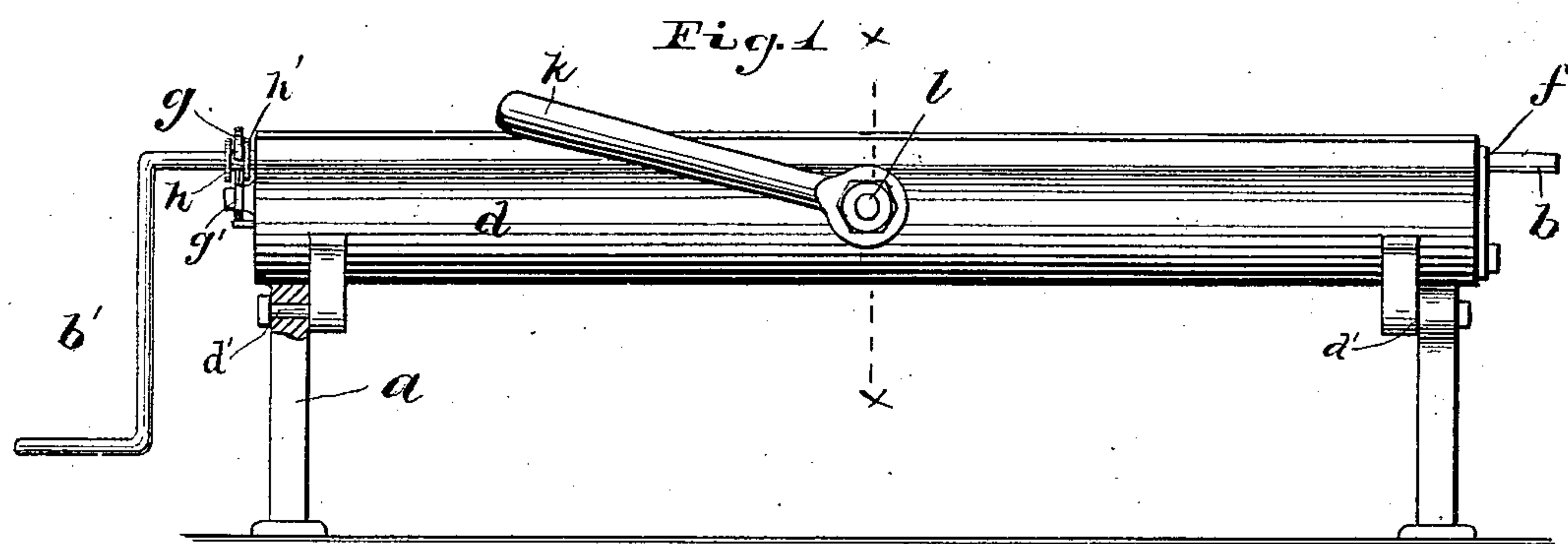
(No Model.)

G. HAUCKE.

MACHINE FOR MAKING EAVES TROUGHS.

No. 309,946.

Patented Dec. 30, 1884.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR MAKING EAVES-TROUGHS.

SPECIFICATION forming part of Letters Patent No. 309,946, dated December 30, 1884.

Application filed September 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAUCKE, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Machines for Making Eaves-Troughs, of which the following is a specification.

My invention relates to the construction of gutters or eaves-troughs, and particularly relates to the formation of the beading on the edge thereof.

The object of my invention is to provide a machine for making an eaves-trough of novel construction, the edges of said trough being rolled inwardly to form a bead, into which the edge of the metallic sheet forming said trough is turned, and the said bead being offset so that its inner surface comes in a line with the inner curve of the trough, thereby forming a neater and stronger finish than heretofore, an opening being at the same time thus formed on the inner surface of the spouting adapted to receive the ends of the stays or braces from which the trough is supported.

My invention consists in the organization and combinations of parts hereinafter described and claimed.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation view of a machine of novel construction adapted to form the improved eaves-trough embodying my invention. Fig. 2 is an end elevation view of the same, showing the latch for holding the winding-rod in place. Fig. 3 is an enlarged sectional elevation taken on line *x x* in Fig. 1. Fig. 4 is a perspective view of the cam-lever in detail. Fig. 5 is an end elevation of my improved eaves-trough ready for use, and Fig. 6 is a cross-sectional detail view illustrating the method of forming the beading.

Like parts are indicated by similar letters of reference throughout the several views.

In forming my improved eaves-trough I use a machine consisting of a frame, *a*, provided with a circular cavity, *a'*, in which is journaled a winding-rod, *b*, said winding-rod being provided throughout its length with a longitudinal slot or groove, *c*, adapted to receive

the edge of the metallic sheet from which the trough is formed.

On one side of the frame *a* is a movable section *d*, hinged or pivoted to said frame at *d'*, and provided with a projecting lip, *e*, said movable section being adapted by suitable means to be turned on its pivoted bearings so as to bring the projecting lip *e* over the winding-rod *b*. The winding-rod *b* is at the front end preferably bent down so as to form a handle or crank, *b'*. It is held at the rear end against vertical movement in the cavity *a'* by a suitable bearing, *f*, through which the rod *b* is adapted to slide. The rod is held against vertical movement at the front end, and also against longitudinal movement in the cavity *a'* by a pivoted latch, *g*, adapted to rest between two small collars, *h h'*, rigidly secured on the rod *b*. The latch *g* is pivoted to the frame *a* at *g'*, and is provided with a handle, *g'*, by means of which the latch may be turned on its pivotal bearing, and which also serves as a weight to hold the latch in position, the movement of said lever being limited by a small pin, *i*.

To remove the winding-rod from the frame the lever *g'* is raised until the latch *g* is clear of the said rod. The front end of the rod is raised and the rod withdrawn longitudinally from the bearing *f*. The weight of the lever *g'* brings the latch back to its place. In replacing the rod the rear end is inserted in the bearing *f* and the rod lowered until it rests against the top of the latch *g*, with one of the collars *h h'* on either side of said latch. The top of the latch is beveled off as shown, and a slight pressure of the rod thereon will raise the hand-lever *g'* and force the latch *g* back sufficiently to allow the rod *b* to fall into the circular cavity *a'*, after which the latch, by reason of the lever *g'*, will close over the rod and hold it firmly in position.

For operating the movable section *d*, I preferably use a cam-lever, *k*, journaled on a rod or bolt, *l*, which extends through the frame *a* and the said section *d*. The movable section is so pivoted or hinged to the frame *a* that when the cam-lever *k* is turned in one direction the said section falls away from the frame *a* by its own weight. When the cam-lever is

turned in the other direction, the section is forced up against the frame.

In forming my improved beading, the edge of the trough is placed in the longitudinal slot *c*, and the handle *b'* turned so as to wind the metal around the rod on the inside of the trough in the position shown by full lines in Fig. 6. The cam-lever *k* is then turned so as to close the movable section up to the frame, thereby bringing the lip *e* over the rod *b* and pressing the metal of the trough over until the inner side of the bead is on a line with the inner curve of the trough, as shown in Fig. 5, and indicated by dotted lines in Fig. 6. The rod *b* is then removed, the movable section being first moved back, and the trough with the bead formed thereon slipped longitudinally from it. It will be seen that by this operation the edge of the metal is turned so as to project into the bead, making a very neat and strong finish. An opening or seam is also formed along each side of the inner surface of the trough, adapted to receive and support the ends of the stays or braces *s* of the trough. This feature I propose to make the subject of another application, and do not, therefore, claim it in this.

It is obvious that sheet metal of any kind may be used in the construction of my improved trough, and that sections of any desired length may be made by making the machine of a proper length to embrace the sheets from which the sections are made.

I do not claim in this application the construction of the improved spouting, as I propose to make that the subject of another application.

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

1. The combination, with a stationary frame having a winding-rod journaled in a recess therein, one side of said recess being extended some distance above said rod, of a movable section provided with a projecting lip, and means for moving said section so as to bring the projecting lip entirely over said rod and against the extended side of said recess, substantially as and for the purpose set forth.

2. The combination, with a winding rod journaled in a recess in a stationary frame, one side of said recess being extended above said rod, of a movable section provided with a projecting lip adapted to extend over said rod and against the side of said recess, and a cam-lever for moving said section, substantially as set forth.

3. The combination, with the frame *a*, rod *b*, having groove *c*, and the latch *g*, of movable section *d*, having lip *e*, and cam-lever *k*, substantially as set forth.

4. The combination, with the frame *a* and longitudinally-grooved rod *b*, of the fixed bearing *f*, collars *h h'*, and latch *g*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand this 16th day of September, A. D. 1884.

GEORGE HAUCKE.

Witnesses:

P. J. CLEVINGER,
PAUL A. STALEY.