

(No Model.)

W. H. CLARK.

APPARATUS FOR MARKING ANGULAR CUTS IN SHEET METAL PIPES.

No. 279,336.

Patented June 12, 1883.

fig. 1

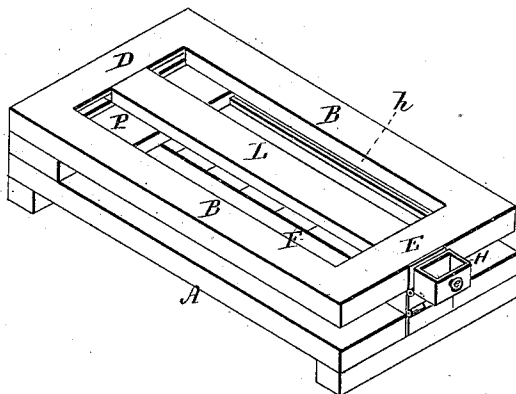


fig. 2

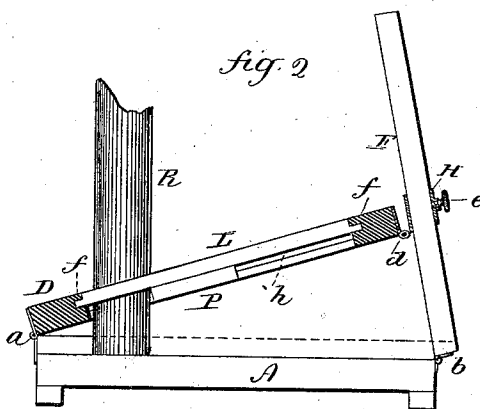


fig. 3

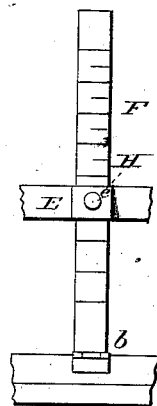


fig. 4

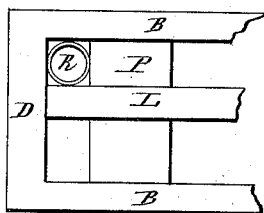
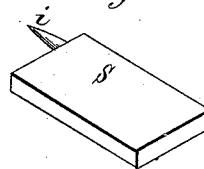


fig. 5



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. CLARK, OF THOMASTON, CONNECTICUT.

APPARATUS FOR MARKING ANGULAR CUTS IN SHEET-METAL PIPES.

SPECIFICATION forming part of Letters Patent No. 279,336, dated June 12, 1883.

Application filed February 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, WM. H. CLARK, of Thomaston, in the county of Litchfield and State of Connecticut, have invented a new Improvement in Apparatus for Marking Angular Cuts in Sheet-Metal Pipes; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the apparatus closed; Fig. 2, sectional side view, showing the frame as adjusted for use; Fig. 3, end view, looking toward the base; Fig. 4, plan view, showing the cylinder to be marked in position; Fig. 5, the marker.

This invention relates to a device by which sheet-metal pipes or other cylinders may be marked for cutting upon any desired angle, as, for instance, in the making of bends, and whereby the usual labor and experiments for producing different angles in this class of work is avoided; and it consists in the apparatus constructed as hereinafter described, and more particularly recited in the claims.

A represents the flat base, which is in extent somewhat larger than the largest pipe or cylinder to be marked. Above the base is a frame composed of two sides, B B, and two ends, D E, in size by preference corresponding to the base. This frame is hinged by its one end, D, to the base, as at *a*, the other end being free, so that it may be raised and turned to any convenient angle to the base. At the opposite end a post, F, is hinged to the base, as at *b*, and which will turn down upon the base, as seen in Fig. 1 and indicated in broken lines Fig. 2, the frame being hinged at a point above the base, so that the post may lie folded down upon the table beneath the frame, as seen in Fig. 1, and whereby the apparatus is in a compact form when not required for use. At the end of the frame opposite the hinge is a socket, H, hinged to the frame, as at *d*, and corresponding in size to the post F, so that the post will work freely through it—that is to say, the frame being raised and the post turned up to enter the socket, the socket will ride on the post and may be secured at any point of in-

clination by the set-screw *e* or other suitable device. The two ends of the frame are constructed with a groove, *f*, upon the inside, and into this groove a bar, L, is placed, extending from end to end, and so as to move from side to side in said groove. On the sides are similar grooves, *h*; but below the grooves, on the ends, and into these grooves, a transverse bar, P, is placed so as to stand at right angles to the bar L, but slide freely from end to end of the frame. This completes the construction.

Suppose a cylinder is to be marked for cutting on an angle. Let R represent that cylinder. It is placed perpendicular on the base within the frame and against one side. The frame is turned up to the required angle—say as seen in Fig. 2—and secured upon the post. The bar L is then moved against the cylinder opposite the side of the frame against which it stands, as seen in Fig. 4, and the transverse bar P moved down against the cylinder opposite the lower end of the frame, thus inclosing the cylinder upon all sides, and so as to hold it in its vertical position. The surface of the frame and the bar L indicate the plane of the cut to be made. Now, with a suitable instrument—say, for instance, a flat block, S, carrying a marker, *i*, (see Fig. 5,)—the mark on the cylinder is made. This block S will be moved upon the surface of the frame and the bar L, carrying the pointer, in contact with the surface, so as to produce a mark thereon, and that mark will be in a plane parallel with the surface of the frame. When different angles are required the frame will be set at that required angle to the base.

The post F may be graduated, as seen in Fig. 3, to indicate different angles, so that the frame may be readily adjusted.

While my invention is intended with special reference to tinners' work, it may be employed in various branches of manufacture where such angles are required to be marked, and the marking is not necessarily confined to cylinders, as the marking may be done upon any work which may be set within the frame.

The bar P may be dispensed with, and the sliding bar, flush with the surface of the frame, may be transverse or longitudinal.

I claim—

1. The combination of the base A, the frame

B D E, hinged by one end to the base, the post F, hinged at the opposite end, and a socket on the frame to work upon the post, with a setting device, whereby the frame may be secured at different angles, substantially as described.

2. The combination of the base A, the frame B D E, hinged by one end to the base, the post F, hinged at the opposite end, and a socket on the frame to work upon the post, with a setting device, whereby the frame may be secured at different angles, and the bar L, arranged to slide within the frame and having its surface flush with the surface of the frame, substantially as described.

3. The combination of the base A, the frame B D E, hinged by one end to the base, the post F, hinged at the opposite end, and a socket on the frame to work upon the post, with a setting device, whereby the frame may be secured at different angles, the bar L, arranged to slide transversely in the frame, and the bar P, arranged to slide longitudinally in the frame, substantially as described.

WILLIAM H. CLARK.

Witnesses:

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