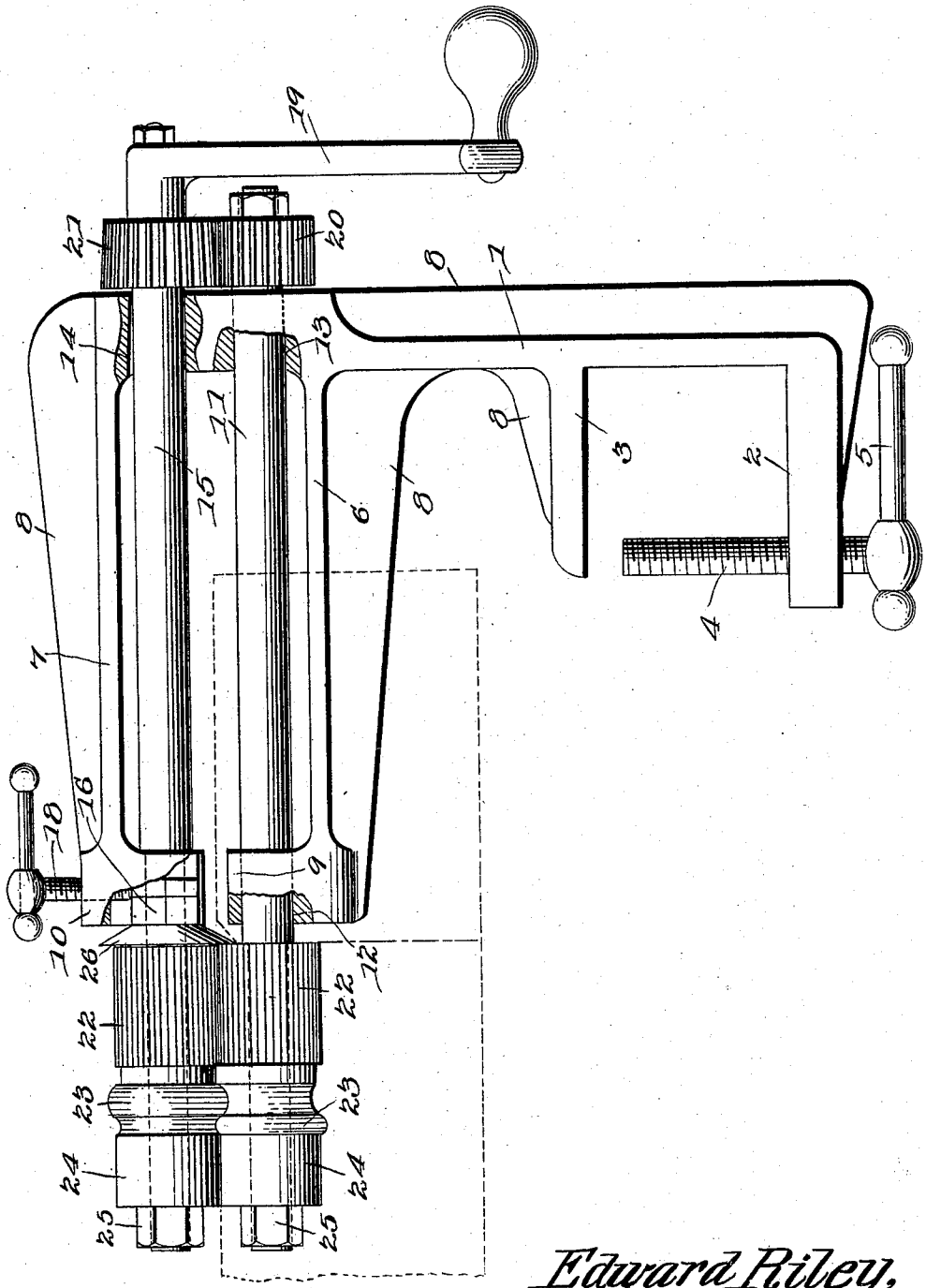
No. 867,417. PATENTED OCT. 1, 1907.

E. RILEY.

SHEET METAL WORKING MACHINE.

APPLICATION FILED OCT. 16, 1905.



Witnesses

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SHEET-METAL-WORKING MACHINE.

No. 867,417. Specification of Letters Patent. Patented Oct. 1, 1907.

Application filed October 16, 1905. Serial No. 283,019.

To all whom it may concern:

Be it known that I, EDWARD RILEY, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented a new and useful Sheet-Metal-Working Machine, of which the following is a specification.

This invention relates to sheet metal working machines and especially to machines for cutting off lengths of tubular ware, such as stove pipes, and for simultaneously crimping and beading or creasing the same; means being also provided for subsequently smoothing the rough or inturned ends of the cut-off pieces; the objects of the invention being to simplify and improve the construction and operation of this class of devices.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be made when desired.

In said drawing, the single view represents a sectional elevation of a machine constructed in accordance with the principles of the invention.

The frame 1 of the improved machine is provided with clamping brackets 2 and 3 through the former of which extends a clamping screw 4 having a handle 5 by means of which the frame may be firmly secured in operative position upon a table or work-bench.

The upper end of the frame is provided with parallel arms 6 and 7, the latter of which is disposed above the former, but in the same vertical plane; said arms, as well as the body of the frame, being provided with reinforcing ribs, as 8, it being understood that the frame is usually formed as a single casting. The arms 6 and 7 are provided at their outer extremities with lugs 9 and 10. A shaft 11 is supported for rotation in alining apertures 12, 13, in the lug 10 and in the main body of the frame; the latter is provided, above the aperture 13, with an aperture 14 which is slightly tapering, as shown, and which affords a bearing for one end of a shaft 15, the other end of which is journaled in a box 16 which slidably engages a recess in the lug 10, which latter is also provided with a threaded opening through which extends a hand screw 18 whereby the box 16 may be pressed in a downward or inward direction. The shaft 15 is provided at its rear end with a crank 19 whereby it may be rotated, and the shafts 11 and 15 are provided with intermeshing pinions 20 and 21, the latter of which is made slightly tapering in order to permit the shaft 15 to be slightly rocked in its rear bearing 14 by simply bearing down upon the crank or handle 19 when the hand screw 18 is loosened.

At their front ends, which protrude beyond the arms of the frame in which they are journaled, the shafts 11 and 15 are provided with crimping rollers 22 and with creasing rollers 23 arranged in pairs, intermeshing with each other. Near their outer extremities, and adjacent to the creasing rollers, are smoothing rollers 24, the latter being of cylindrical shape and having faces adapted to contact with each other. The set of rollers upon each shaft may be constructed separately or integrally, as may be preferred, and the rollers may be secured upon the respective shafts by means of tightening nuts 25. The shaft 15 carries adjacent to the crimping roller 22 a cutting disk 26, the cutting edge of which projects beyond the crimping roller upon said shaft, so as to overlap the crimping roller upon the shaft 11 when the device is in operation.

It will be understood that by loosening the screw 18, the free end of the shaft 15 may be elevated sufficiently to admit of the insertion between the shafts, and the implements carried thereon, of the end of a joint of stove pipe or the like, which by tightening the screw 18 will be engaged by the crimping and creasing rollers, as well as by the cutting member. By turning the crank 19 a few times, the joint of pipe will be fed between the rollers, the cutting disk severing the pipe by making a complete annular cut, while the crimping and the creasing rollers will coöperate to form a crimp and an annular crease or bead adjacent to the inner end of the crimped portion. The cut-off end of the joint may be subsequently smoothed by passing it between the smoothing rollers 24.

This improved device, as will be seen from the foregoing description, is extremely simple and easily operated, and it may be advantageously used for the purpose of cutting off joints of stove pipe to the proper lengths required in setting up stoves.

Having thus described the invention, what is claimed is:—

A metal working machine comprising a frame having means for attachment to a fixed object, said frame having a perforation which increases in diameter toward its

inner end and forms a bearing, a vertically adjustable bearing located in the frame substantially opposite said perforation, a shaft journaled in said adjustable bearing and said perforation, a means for rotating said shaft, a beveled gear wheel fixed to said shaft, a second shaft journaled for rotation in said frame, a gear wheel fixed to said second shaft and meshing with said beveled gear wheel, work engaging members carried by said shafts, and a beveled cutting disk attached to the first said shaft immediately behind the work engaging member and having its cutting edge overlapping the end of the work engaging member attached to the second said shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EDWARD RILEY.

Witnesses:
J. M. MOORE,
J. HEATON.