No. 817,263. PATENTED APR. 10, 1906.

C. T. MURRAY.

METAL CUTTING AND TRIMMING MACHINE.

APPLICATION FILED SEPT. 27, 1904.

Fig. 1.

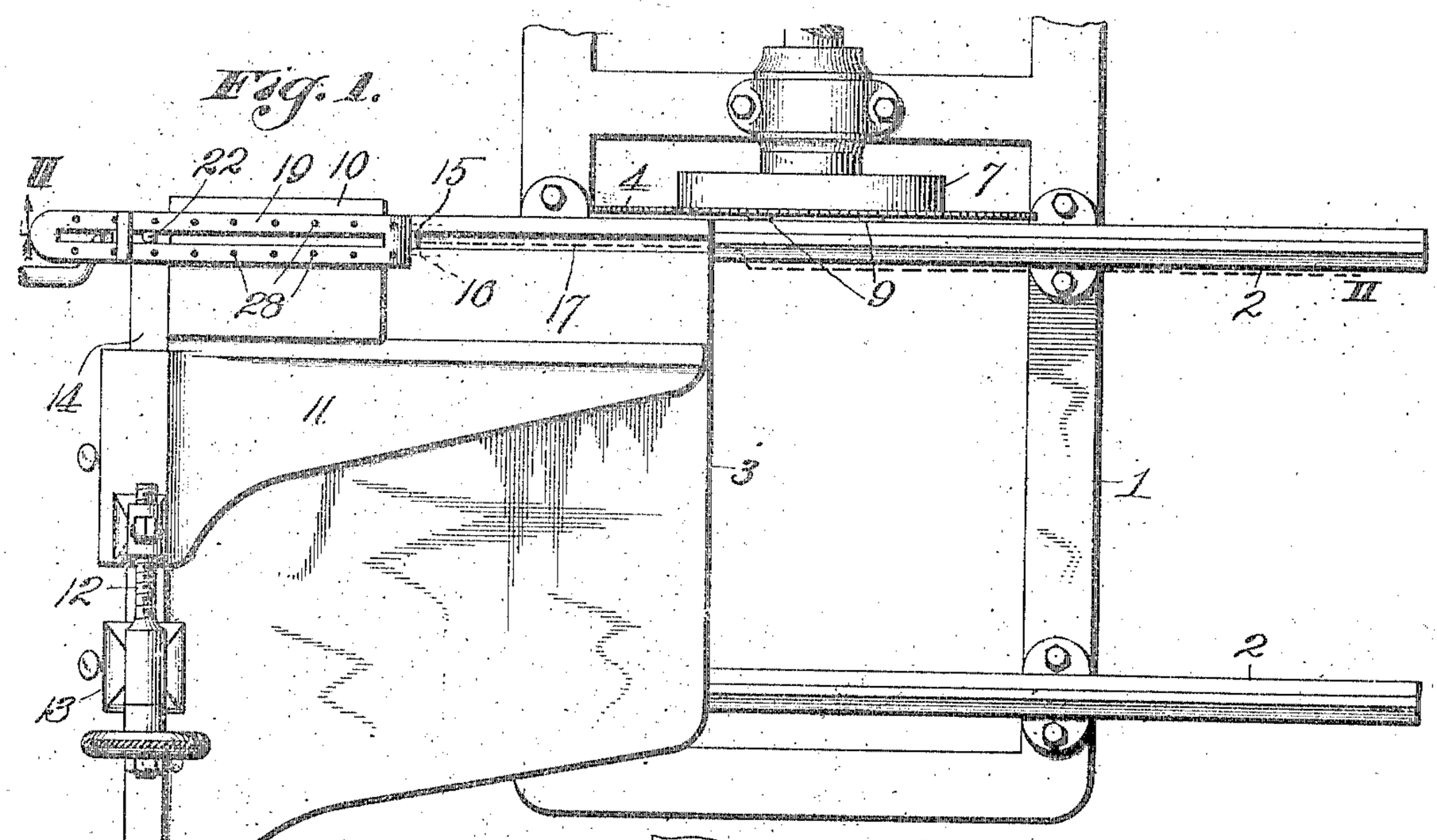


Fig. 2.

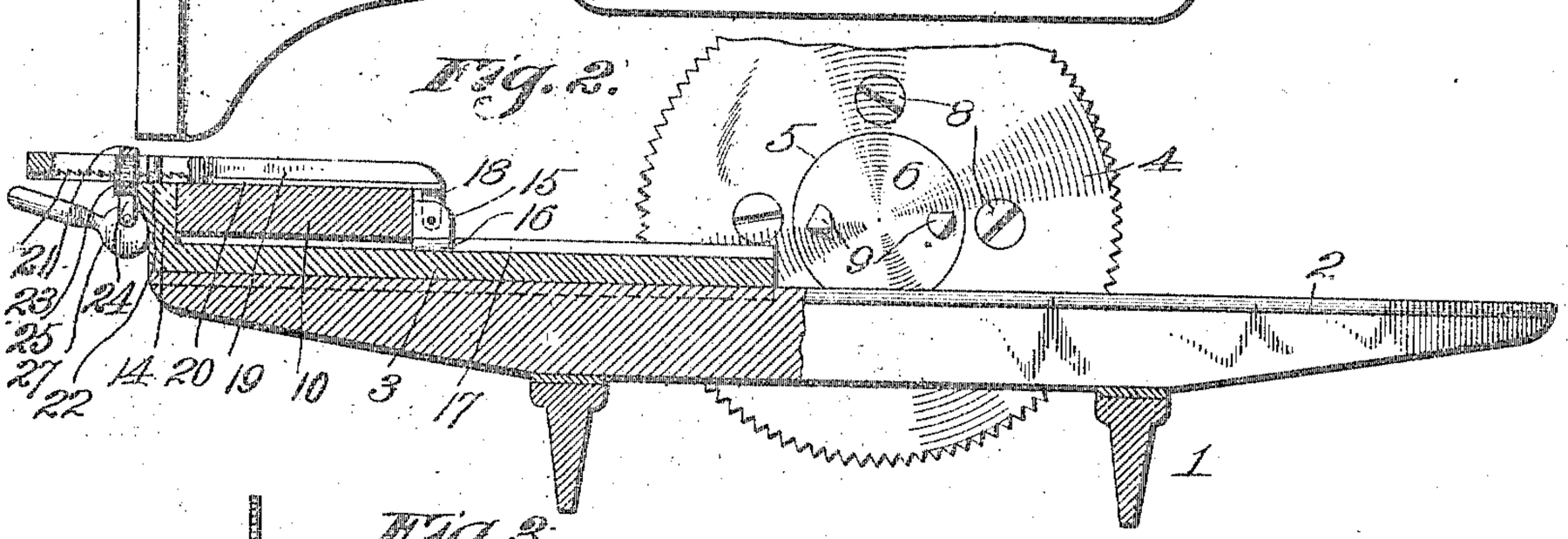


Fig. 3.

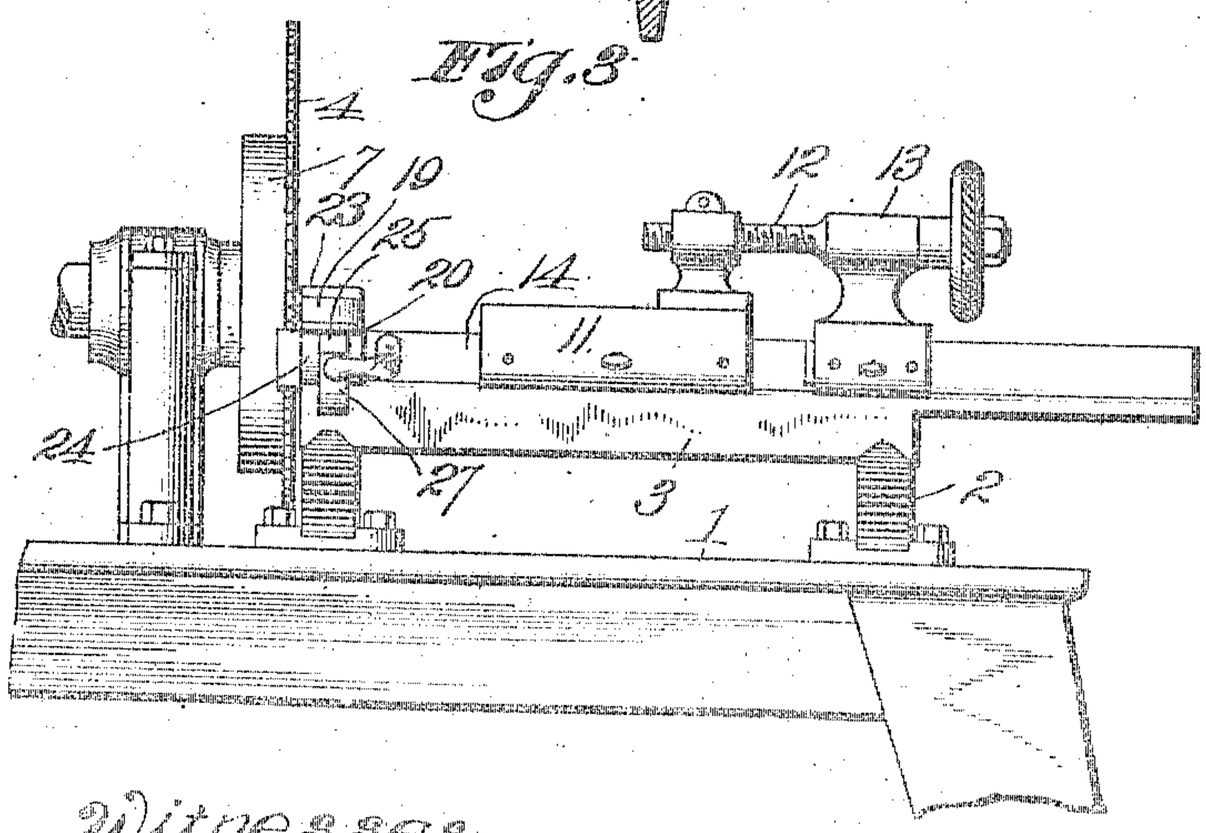
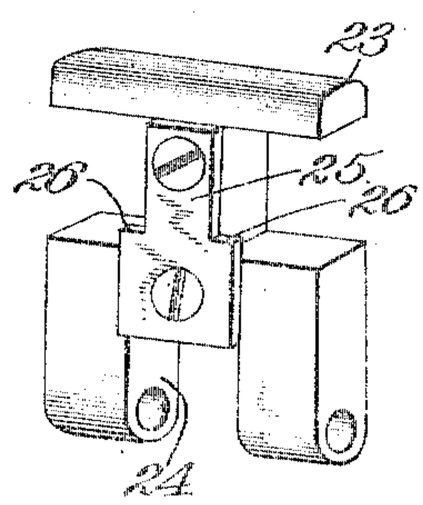


Fig. 4.



Witnesses,
F. P. Glover.
H. C. Rodgers.

Inventor.
Chas. T. Murray.
By Church & Thorpe
Attys.

UNITED STATES PATENT OFFICE.

CHARLES T. MURRAY, OF KANSAS CITY, MISSOURI, ASSIGNOR TO MURRAY MACHINERY CO., A CORPORATION OF MISSOURI.

METAL CUTTING AND TRIMMING MACHINE.

No. 817,263. Specification of Letters Patent. Patented April 10, 1906.

Application filed September 27, 1904. Serial No. 226,161.

To all whom it may concern:

Be it known that I, CHARLES T. MURRAY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Metal Cutting and Trimming Machines, of which the following is a specification.

This invention relates to metal cutting and trimming machines; and my object is to produce a single machine for accurately cutting a metal plate and trimming or smoothing the new end of such plate without entailing any additional labor or movement on the part of the operator than has heretofore been required by the cutting action alone.

A further object is to produce a simple and reliable means for holding the metal block to be cut and trimmed in the desired position.

With the above-named objects in view the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a top plan view, partly broken away, of a machine embodying my invention. Fig. 2 is a section taken on the line II II of Fig. 1. Fig. 3 is a front view of that part of the machine shown in Fig. 1. Fig. 4 is a detail perspective view of connected parts hereinafter described.

In the said drawings, 1 designates the frame of the machine, and 2 a pair of parallel tracks secured rigidly upon and extending transversely of the frame.

3 is a bed or table to be moved back and forth upon said tracks by the person in charge, such movement being parallel with and adjacent to the face of a circular saw 4. Said saw is provided with a large central opening 5, fitting snugly upon a boss 6 of a suitably-rotated cutter-head 7, the saw being secured to said cutter-head by screw-bolts 8 and the cutter-head having diametrically opposite cutters 9 projecting from the boss 6 beyond the face of the saw.

10 represents a block of metal, such as stereotype metal, which rests upon the bed or table 3 and bears against the arm 11, mounted to slide toward and from the plane of the face of the saw upon bed or table 3 through the instrumentality of an adjusting-screw 12, journaled in a bracket 13, carried by said bed or table, it being understood that this movable bed or table 3, arm 11, and the means for adjusting the latter are common in stereotype-trimming machines.

14 designates the rib or rail of bed or table 3, upon which arm 11 slides, and said rib or rail forms a bearing for the front end of the block 10, the latter being clamped reliably in the position shown by mechanism constructed as follows:

15 designates a block having its flanged base 16 dovetailed in groove 17, extending transversely of and near the left-hand margin of the bed or table, said block fitting against the rear edge of the block 10. Pivoted to the dovetail block 15 are the depending lugs 18 of a longitudinally-slotted clamp-arm 19, said arm having interposed between it and the stereotype-block the leather strips 20 to prevent defacement of the type, and inward of said strips the block is ratchet-toothed at its under side, as at 21, and projecting up through the slot of the arm from the rib 14 is a guide-pin 22.

23 is a T-shaped piece having its stem depending through the slot of said pivoted clamp-arm and its head resting upon said arm Underlying the latter and fitting snugly against the lower end of the stem of the T-shaped piece is an inverted-U-shaped piece 24, united at its front side to the T-shaped piece by means of the thin steel plate 25, the latter being formed with the upwardly-disposed shoulders 26 for engagement with the teeth 21 of the clamp-arm.

Pivoted in the U-shaped piece 24 is a cam-lever 27, having its head bearing against the front side of rib 14, so that when thrown downward it will swing the rear end of the inverted-U-shaped piece outward and thereby effect the simultaneous downward pressure of the T-shaped piece upon the clamp-arm and the upward pressure of plate 25 against the teeth of said arm, this action resulting in clamping the stereotype-block reliably between the dovetail block 16 and rib 14, with the left-hand edge of the stereotype-block in position to be acted upon, first by the saw and then by the cutters 9, as the operator pushes the bed or table rearwardly until its front edge attains a position about in line with the center of the cutter-head, as will be readily understood by reference to

Fig. 1. After the block is trimmed it is released by simply reversing the action of the cam-lever and then while still gripping said lever swinging the same and the clamp-arm upward with the dovetail block as the pivotal point or support. A new block of the same or varying proportions is then inserted.

If the new block is of the same length but varying width, the length being measured from right to left, the clamp-arm is longitudinally adjusted by sliding the dovetailed block in groove 17 the required distance. If the block is of the same width but of varying length, screw 12 is turned to adjust arm 11 the proper distance. If the block varies both in length and width, clamp-arm and arm 11 must both be adjusted, as will be readily understood, and in order to facilitate and gage the adjustment of the clamp-arm more accurately the latter is provided with inch or other division marks 28, as shown in Fig. 1.

With this machine the blank extension of a stereotype-block or the blank extension of a linotype-slug can be easily and quickly cut off and at the same time the new end of the body portion be trimmed smoothly.

From the above description it will be apparent that I have produced a machine embodying the features of advantage enumerated as desirable in the statement of the object of the invention, and while I have illustrated and described the preferred embodiment of the invention it is to be understood that I reserve the right to make such changes as properly fall within the principle of construction involved.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of a shaft, a cutter-head mounted thereon, a circular boss projecting centrally from the face of the cutter-head, stud-cutters projecting from the face of the boss parallel with the axis of the shaft, a saw seated on the periphery of the boss flush with the face of the same and bearing against the face of the cutter-head, and fastenings inserted through the saw into the cutter-head.

In testimony whereof I affix my signature in the presence of two witnesses.

CHARLES T. MURRAY.

Witnesses:
H. C. RODGERS,
G. Y. THORPE.