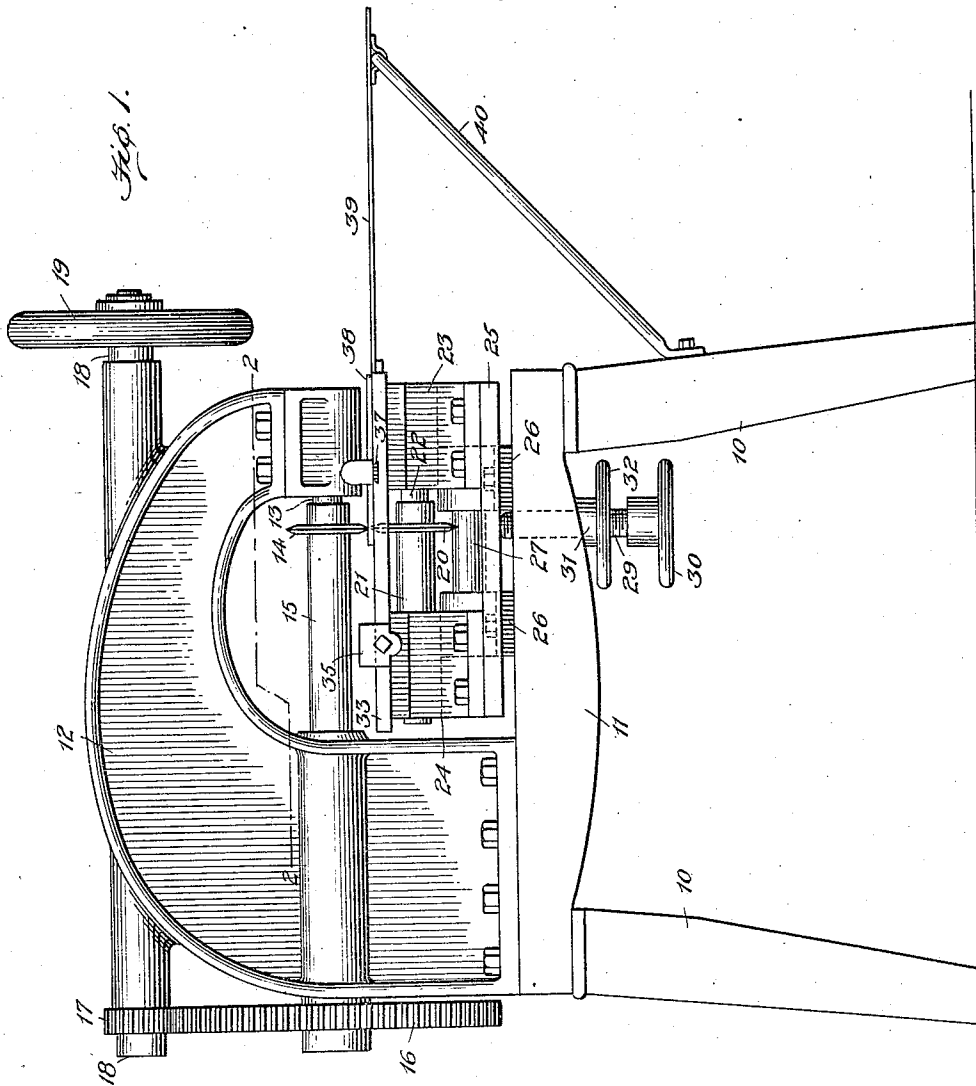


F. M. JOSLIN.
SHEET STEEL CUTTER.
APPLICATION FILED MAR. 29, 1920.

1,420,929.

Patented June 27, 1922.

2 SHEETS—SHEET 1.



Witness

Edwin L. Bradford

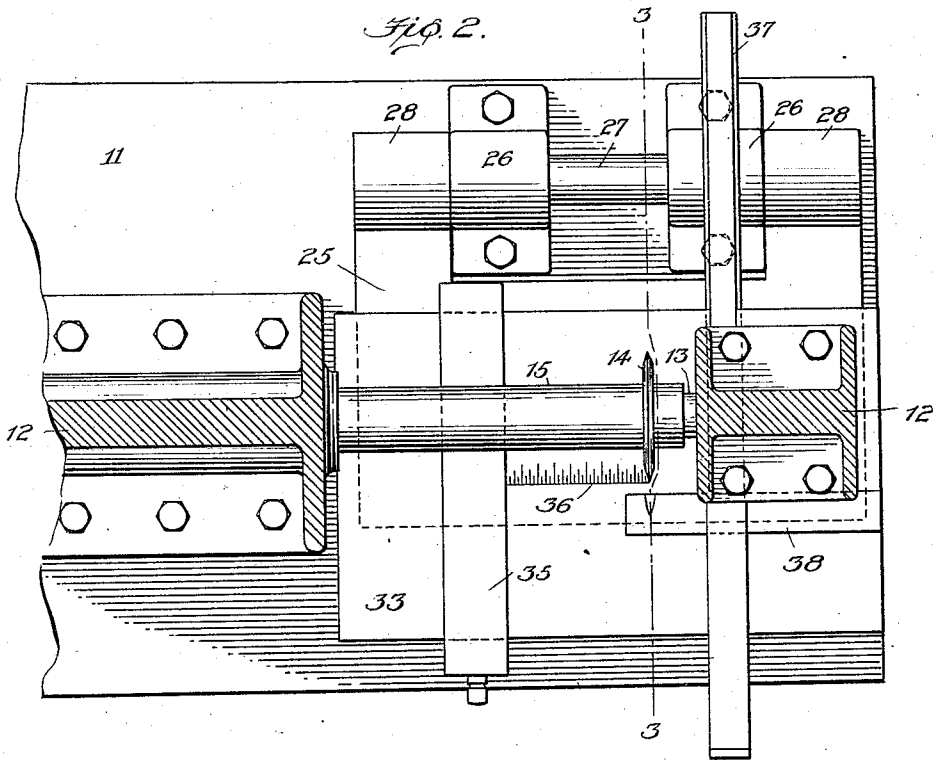
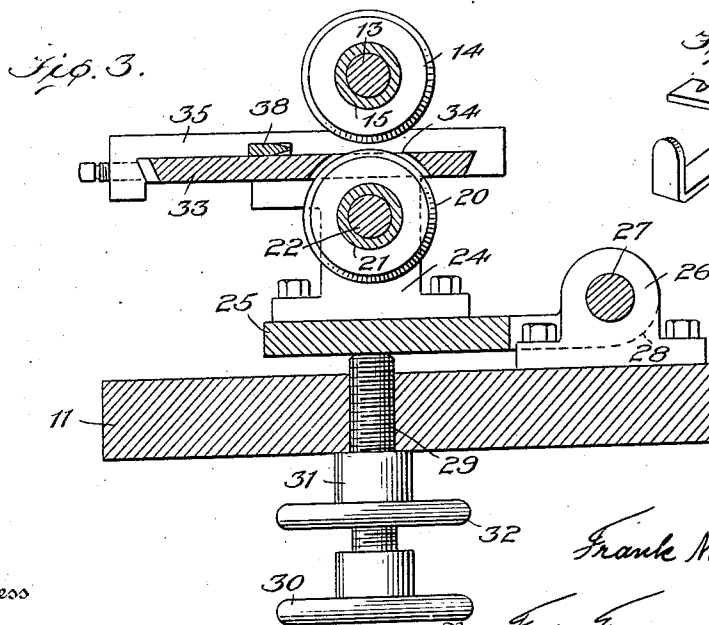
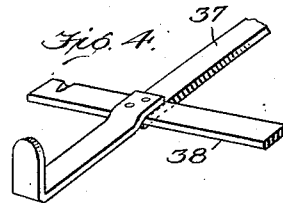
Inventor

Frank M. Joslin,

By *Forster, Freeman, Watson & Co.*
Attorneys.

1,420,929.

2 SHEETS—SHEET 2.



Witness

Edwin L. Bradford

Inventor

Frank M. Joslin,

By Foster, Freeman, Watson & Fox,

Attorneys.

UNITED STATES PATENT OFFICE.

FRANK M. JOSLIN, OF AMSTERDAM, NEW YORK, ASSIGNOR TO INMAN MANUFACTURING COMPANY, INC., OF AMSTERDAM, NEW YORK, A CORPORATION OF NEW YORK.

SHEET-STEEL CUTTER.

1,420,929.

Specification of Letters Patent. Patented June 27, 1922.

Application filed March 29, 1920. Serial No. 369,486.

To all whom it may concern:

Be it known that I, FRANK M. JOSLIN, a citizen of the United States, and residing at Amsterdam, Montgomery County, State of New York, have invented certain new and useful Improvements in Sheet-Steel Cutters, of which the following is a specification.

This invention relates to a machine which is particularly adapted to cut sheets of metal or to groove or score the same so that they may be easily broken along the line of the groove. The object of the invention is to provide a machine having cooperating cutters which engage the material on opposite sides to cut or score the same and to provide means for supporting one of said cutters and the work receiving table so that said parts may be adjusted toward and from the other cutter to compensate for wear and to accommodate materials of different thicknesses. The invention further contemplates improvements in various details of construction by which a convenient, durable and efficient machine is produced.

The invention is embodied in the construction shown in the accompanying drawings in which:

Figure 1 is a front elevation of the machine;

Figure 2 is a cross section on the line 2—2 of Figure 1 showing certain parts in section and others in plan;

Figure 3 is a sectional view on the line 3—3 of Figure 2;

Figure 4 is a perspective view showing the details of the work feeding device.

Referring to the mechanism in detail 10 represents suitable standards for supporting the machine, a base 11 being mounted on the said standards. Secured to said base 11 and extending upwardly therefrom is a curved supporting frame 12 in which certain parts of the mechanism are mounted. The cutting mechanism proper includes the shaft 13 to which is secured a circular cutter 14, this cutter being mounted upon a sleeve 15 which is secured to said shaft so as to rotate therewith. The shaft 13 is journaled at each end in the curved supporting frame 12 of the machine and at one end this shaft is provided with a gear wheel 16 which meshes with another gear 17 mounted upon a driving shaft 18, this driving shaft being also journaled in the frame 12 of the machine and provided with a hand wheel 19 by which it may be

rotated, the rotation of this shaft causing the rotation of the circular cutter 14. The shaft 18 extends through the top of the curved frame 12 parallel to the shaft 13 and said shaft 18 is of such length that the hand wheel 19 for rotating the same is arranged in convenient position to be grasped by the operator. It is to be understood that instead of the hand wheel 19 any suitable power mechanism may be provided for rotating the shaft 18.

Arranged below the cutter 14 is a second cutter 20 which is provided with a sleeve portion 21 fixed to the shaft 22, this shaft being positioned directly beneath the shaft 13 and being mounted to rotate freely in standards 23 and 24, said standards being rigidly mounted upon a supporting member 25 which is pivoted at one side to the base 11 of the machine. The pivotal connection between the supporting member 25 and the base 11 consists of spaced bearings 26 through which a pivot rod 27 passes, this pivot rod also passing through openings provided in enlarged portions 28 of said supporting member 25. It will be seen that the pivotal connection between the member 25 and the base 11 is arranged at a considerable distance to one side of the shafts 13 and 22, the result being that when the shaft 22 is adjusted toward and from the shaft 13, as later described, it will always be maintained in a position substantially beneath the shaft 13. Means are provided for adjusting the supporting member about its pivot which consists of a threaded bolt 29 which engages a threaded opening in the base member 11, this threaded bolt being preferably arranged substantially in line directly beneath the shafts 13 and 22 and being provided with a hand wheel 30 and operating the same. Mounted upon the threaded bolt 29 is a lock nut 31 to which a hand wheel 32 is secured, said lock nut 31 constituting means by which the threaded bolt 29 may be locked in any desired position.

Mounted upon the top of the standards 23 and 24 is a work supporting table 33, this table being provided with a slot or opening 34 through which the cutter 20 projects. A work gauge 35 slidably engages the work supporting table which table is provided with a series of graduations 36 by which the width of material to be cut can be easily determined.

Means are provided for feeding the work to the cutters which consists of a member 37 suitably shaped to engage a dove-tailed groove in the top of the table, the member 37
5 being provided with a transverse work engaging portion 38.

When desired the machine may be provided with a supplemental work supporting member 39 mounted in line with the work
10 supporting table 33 and held in position by a brace 40.

The operation of the device will be clear from the foregoing description but it may be briefly restated at this point. The material which it is desired to cut or score is
15 placed upon the work supporting table 33 and is engaged by the work feeding device heretofore referred to by which it is forced between the cutters 14 and 20, the cutter 14
20 being operated through the mechanism heretofore described and the cutter 20 being mounted free to rotate in the standards 23 and 24. To compensate for the wear of the cutters or to accommodate materials of different
25 thicknesses the cutter 20, together with the work supporting table 33, may be adjusted toward and from the cutter 14, this adjustment being accomplished through the medium of the pivoted supporting member 25 and the means heretofore described
30 for adjusting said member.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a machine of the class described, in
35 combination, a base, a shaft supporting frame extending upwardly therefrom, an upper shaft having its ends journaled in said frame, a circular cutter secured to said shaft intermediate its ends, means for rotating
40 said shaft and cutter, a supporting member pivotally connected to said base at one side of a vertical plane passing through said upper shaft, standards secured to said member and extending upwardly therefrom, a lower
45 shaft mounted on said standards beneath said upper shaft and carrying a cutter for cooperating with said first named cutter, and means adjustably mounted in said base beneath said lower shaft and said member
50 for adjusting the position of said lower shaft relative to the upper shaft.

2. In a machine of the class described, in
55 combination, a base, a curved supporting frame secured to one side of said base and extending upwardly and forwardly toward the

other side of the base, an upper shaft having its ends journaled in said frame, a circular cutter secured to said shaft intermediate its ends, means for rotating said shaft and cutter, a supporting member pivotally connected to said base at one side of a vertical plane
60 passing through said upper shaft, standards secured to said member and extending upwardly therefrom, a lower shaft mounted on said standards with its axis substantially directly beneath the axis of said upper shaft and carrying a cutter for cooperating with
65 said first named cutter, and means adjustably mounted in said base beneath said lower shaft and said member for adjusting said lower shaft relative to the upper shaft.

3. In a machine of the class described, in combination, a base, a curved supporting frame secured to one side of said base and extending upwardly and forwardly and downwardly to a point above the other side of said
75 base, an upper shaft having its ends journaled in said frame, a circular cutter secured to said shaft intermediate its ends, a drive shaft journaled in said curved frame above said upper shaft, means for causing rotation
80 of said upper shaft on rotation of said drive shaft, a supporting member pivotally connected to said base at one side of a vertical plane passing through said upper shaft, a lower shaft mounted on said member and arranged beneath said upper shaft and carrying
85 a cutter for cooperating with said first named cutter, a bolt threadedly mounted in said base and engaging said member at a point substantially directly beneath said last named shaft and means for rotating said
90 bolt.

4. A machine of the class described, comprising a shaft and means for rotating the
95 same, a circular cutter fixed to said shaft, an adjustable supporting member mounted below said shaft, a work receiving table carried by said supporting member, a shaft carried by said supporting member and provided with a circular cutter positioned to co-
100 operate with the first named cutter, means slidably mounted on said table for feeding the work to said cutters, a work gauge adjustably secured to the table, and means for
105 moving said supporting member to adjust said table and second mentioned cutter with reference to the first mentioned cutter.

In testimony whereof I affix my signature.

FRANK M. JOSLIN.