P. R. BISSELL.

METAL SCRAPING MACHINE.

APPLICATION FILED MAR. 14, 1908.

957,031.

Patented May 3, 1910.

2 SHEETS—SHEET 1.

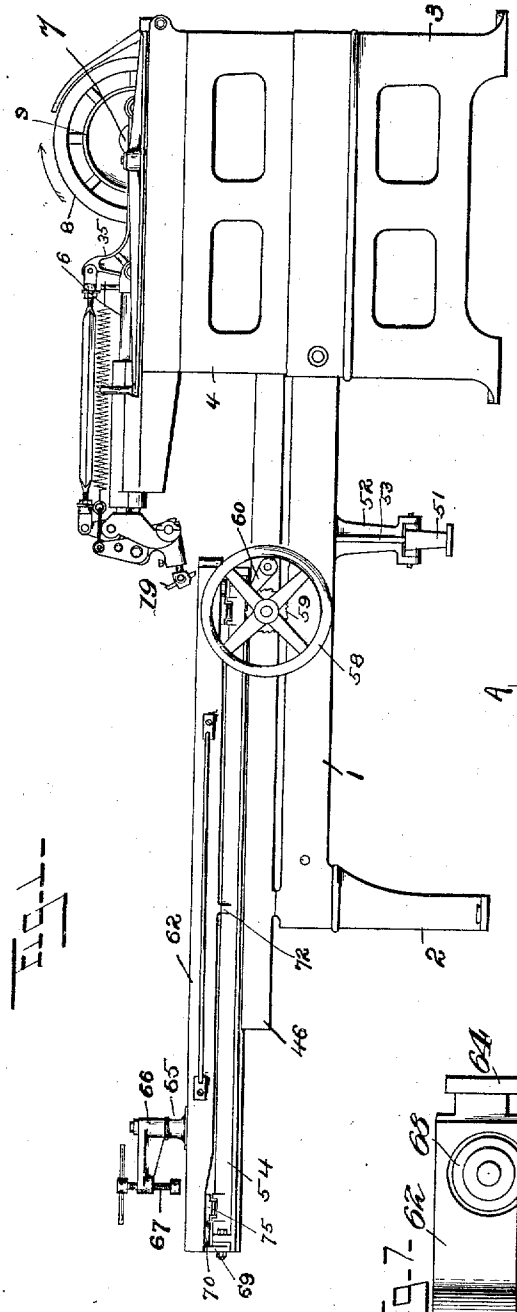

FIG. 1.

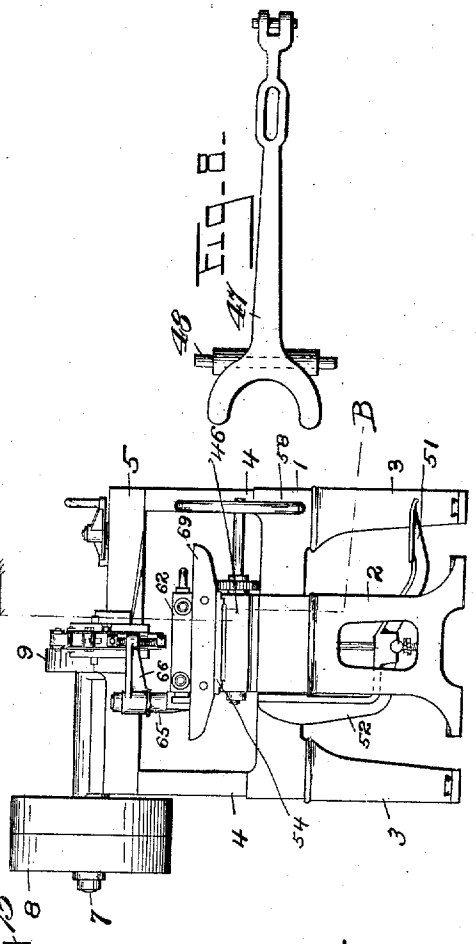

FIG. 2.

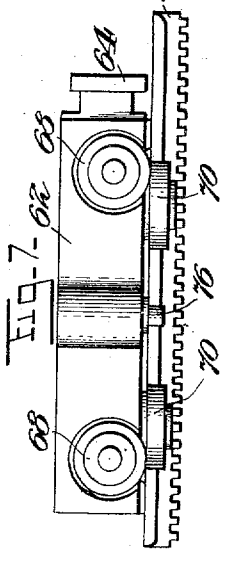

FIG. 7.

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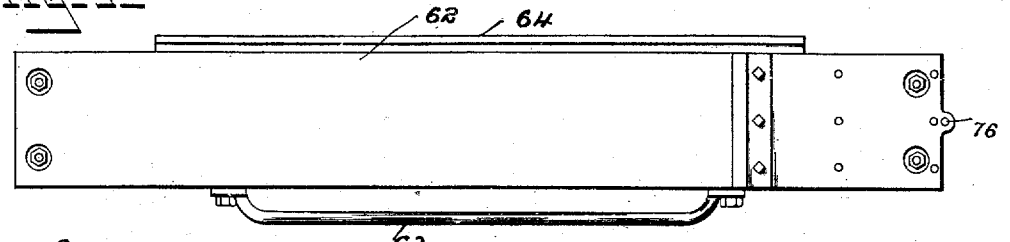
2 SHEETS—SHEET 2.

Fig. 3.



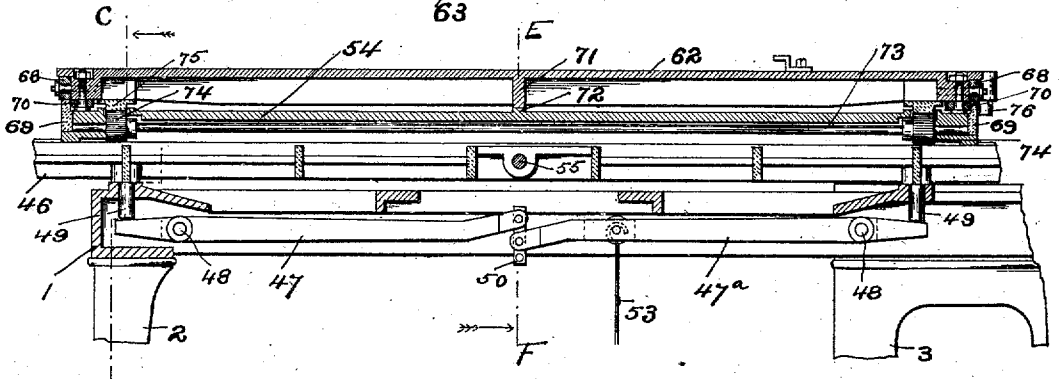


Fig. 4.

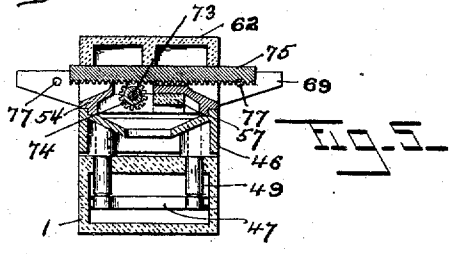


Fig. 5.

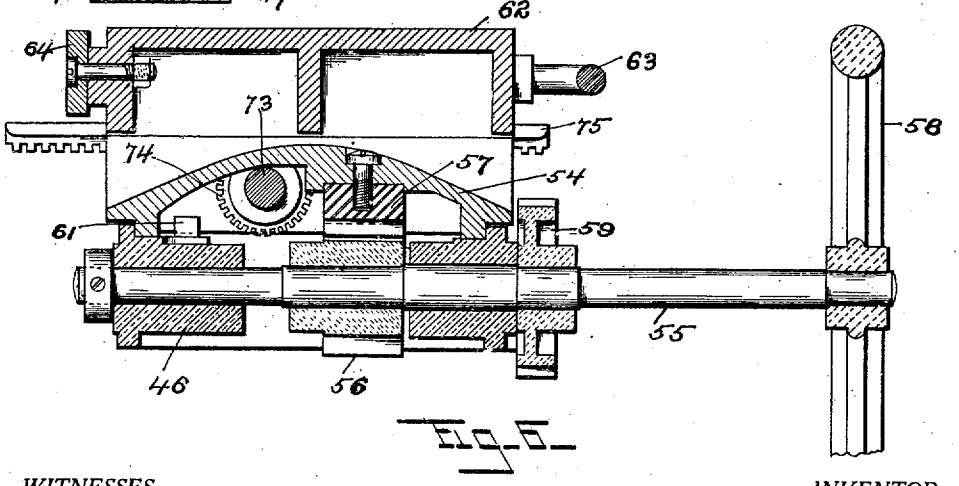


Fig. 6.

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UNITED STATES PATENT OFFICE.

PERCY R. BISSELL, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE WATERBURY FARRELL FOUNDRY AND MACHINE COMPANY, OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

METAL-SCRAPING MACHINE.

957,031. Specification of Letters Patent. **Patented May 3, 1910.**

Application filed March 14, 1908. Serial No. 421,020.

To all whom it may concern:

Be it known that I, PERCY R. BISSELL, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Metal-Scraping Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to new and useful improvements in scraping machines, having for its object, among other things, to produce a machine of this character which may be operated at a high speed; to mount the table so that it may be readily and easily manipulated; as well as to make the machine of the fewest possible parts, so designed as to have the maximum strength at a minimum cost.

To these, and other ends, my invention consists in the scraping machine, having certain details of construction and combinations of parts, as will be hereinafter described and more particularly pointed out in the claims.

Referring to the drawings, in which like numerals of reference designate like parts in the several figures; Figure 1 is a side elevation of my improved scraping machine complete; Fig. 2 is an end elevation thereof; Fig. 3 is a plan of the table; Fig. 4 is a vertical longitudinal section of the table, carriage, platen and bed, upon line A—B of Fig. 2; Fig. 5 is a vertical cross section thereof upon line C—D of Fig. 4; Fig. 6 is a vertical cross section of the carriage and table upon line E—F of Fig. 4; Fig. 7 is an end elevation of the table; and Fig. 8 is a plan of the lifting lever.

The scraping machine herein shown and described is used for removing the outside surface from sheets of brass, German silver, or similar metals, after the first or breaking down operation of rolling. The sheet is clamped upon a movable table having a transverse and longitudinal motion under easy control of the operator and is brought up against the cutter by depressing a foot treadle. The cutter has a fixed stroke, substantially parallel with the table and is secured in a holder that is mounted so as to keep the cutter in contact with the sheet during the cutting stroke and away from the sheet during the return movement.

In the practice of my invention I provide a bed 1 supported at its ends by the legs 2 and 3 and over one end thereof the top frame 5 is supported by the side frames 4, within which is mounted the slide 6 and the shaft 7 having a crank disk 9 fixed thereon at one end and the pulleys 8 at the other end, and connected with said slide is the cutter 19.

Resting upon the top of the bed 1 is the platen 46 which is movable vertically through the levers 47 and 47ª, pivotally mounted upon the shafts 48 and having connection at their outer ends with the studs 49 that are fixed in the underside of the platen and project downwardly through the top of the bed. These levers are joined at their inner ends by a link 50 and actuated by a treadle 51 which is pivotally connected to a bracket 52 and with the lever 47ª by the rod 53. A downward pressure upon said treadle swings said levers so that the platen 46 is elevated, and the same is returned by gravity when the pressure is removed.

The carriage 54, which has a rounded upper surface in cross section, to shunt off the chips as they fall thereon and keep them away from the operating mechanism, is movable endwise upon the platen 46 through a pinion 56 on the shaft 55, which meshes into a rack 57 secured to said carriage. The shaft 55 is manually rotated through the hand wheel 58. Fixed on said shaft 55 is the ratchet disk 59 which is engaged by a pawl 60 to prevent the premature movement of said carriage in one direction, and a stop pin 61 fixed within the platen 46 limits the endwise movement of said carriage thereon.

The table is designated by the numeral 62 and has a hand rail 63 upon one side and a clamp bar 64 upon the opposite side that carries a slidable clamp post 65 upon which is a swinging clamp arm 66 through the end of which is threaded a clamp screw 67. This table is provided at both ends with rolls 68 which ride upon the top of the rails 69 secured to the ends of the carriage 54 and thrust rolls 70 upon the underside thereof which contact with the inner faces of said rails 69, as shown in Fig. 4. This table is manually operated laterally upon said carriage and is supported in the middle by a lug 71 which rests upon a lug 72 on the carriage 54 and at its outer ends by the rolls 68 which facilitate its easy movement, the thrust rolls 70 being provided to take the

end strain during the cutting operation as well as to aid in the easier operation of the table.

To insure the permanent alinement and the synchronous movement of the ends of the table without cramping I have journaled a shaft 73 therein that carries the pinions 74 near each end that mesh into the racks 75 fixed upon the underside of said table. A stop pin 76 which depends from one end of the table and engages stop pins 77 fixed in the rail 69 limits the movement of the table and prevents the same from being pulled off the carriage.

There are minor changes and alterations that can be made within my invention aside from those herein suggested, and I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but claim all that falls fairly within the spirit and scope of my invention.

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

1. The combination with the bed; of a platen mounted thereon; a carriage movable endwise on said platen and having a rack and pinion connection therewith; a table manually movable upon said carriage; and manually actuated lever means connected with the opposite ends of said platen for lifting said platen, carriage and table from said bed.

2. The combination with the bed; of a platen mounted thereon; a carriage movable endwise upon said platen; a table manually movable crosswise upon said carriage; companion levers pivotally connected with the opposite ends of said bed and arranged to act upon said platen; and a treadle having connection with said levers.

3. The combination with a bed; of a platen thereon; a shaft rotatably mounted in said platen; a pinion on said shaft; a carriage mounted on said platen; a rack on said carriage, the teeth of which are engaged by the teeth of said pinion; a table manually movable crosswise upon said carriage; and means for moving said platen, carriage and table as a unit from said bed, said means comprising manually actuated levers connected at their inner ends to a treadle, and having connection at their outer ends with a part on said platen.

4. The combination with the reciprocating carriage having a rounded top in cross section and a lug on said rounded portion between the ends of said carriage having a flat top; of a table manually movable crosswise thereon, supported only at its ends and by the said lug.

5. The combination with the bed; of a platen thereon; a carriage movable upon said platen in the direction of its length; a rail upon each end of said carriage; a table movable crosswise upon said carriage; rolls at each end of said table which contact with said rails and support said table at its ends; and companion rolls mounted in said table so that the axes thereof are at substantially a right angle to the aforesaid rolls and contact with said rails to prevent endwise movement of said table upon said carriage.

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

PERCY R. BISSELL.

Witnesses:
J. M. GALLOND,
M. J. NOONAN.