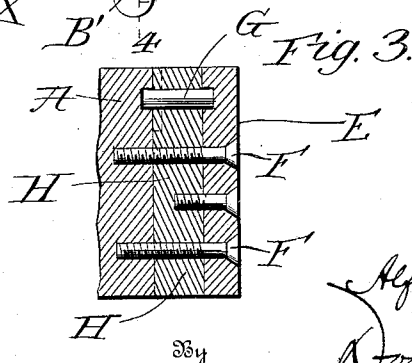
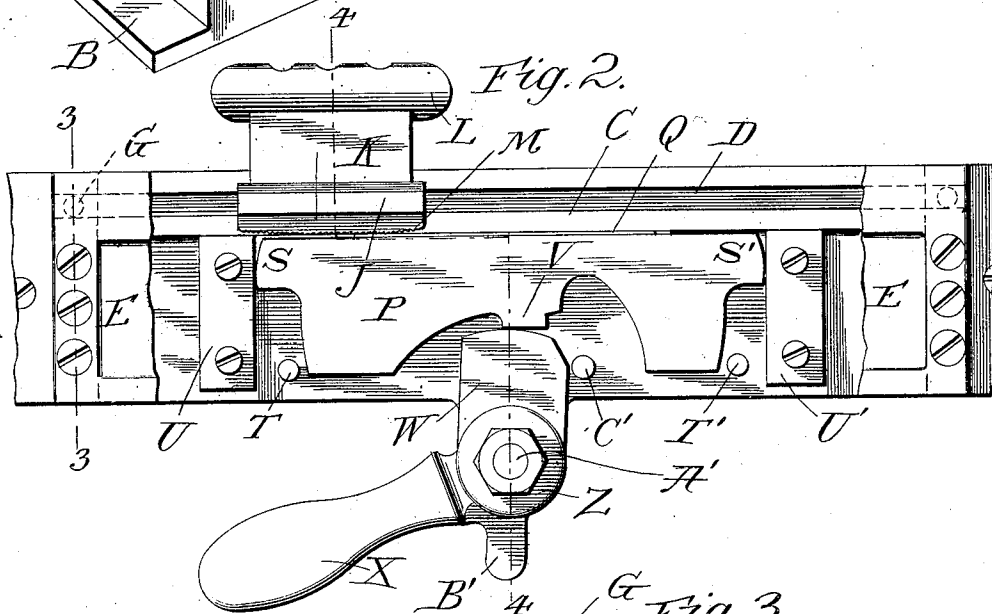
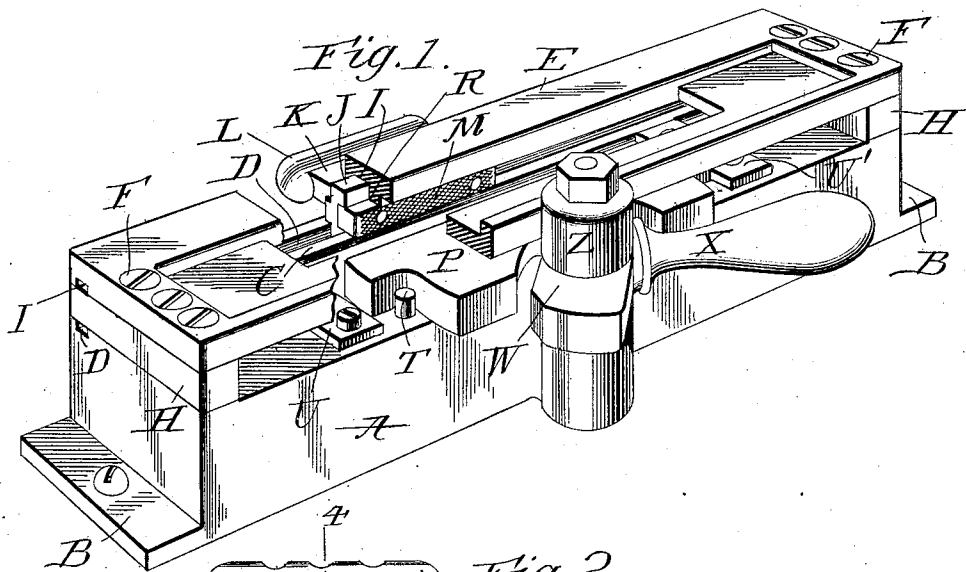


No. 897,408.

PATENTED SEPT. 1, 1908.

A. W. ROOVERS.
ABRADING MACHINE.
APPLICATION FILED AUG. 19, 1905.

2 SHEETS—SHEET 1.



Witnesses
 C. Rauber
 W. R. Nowise

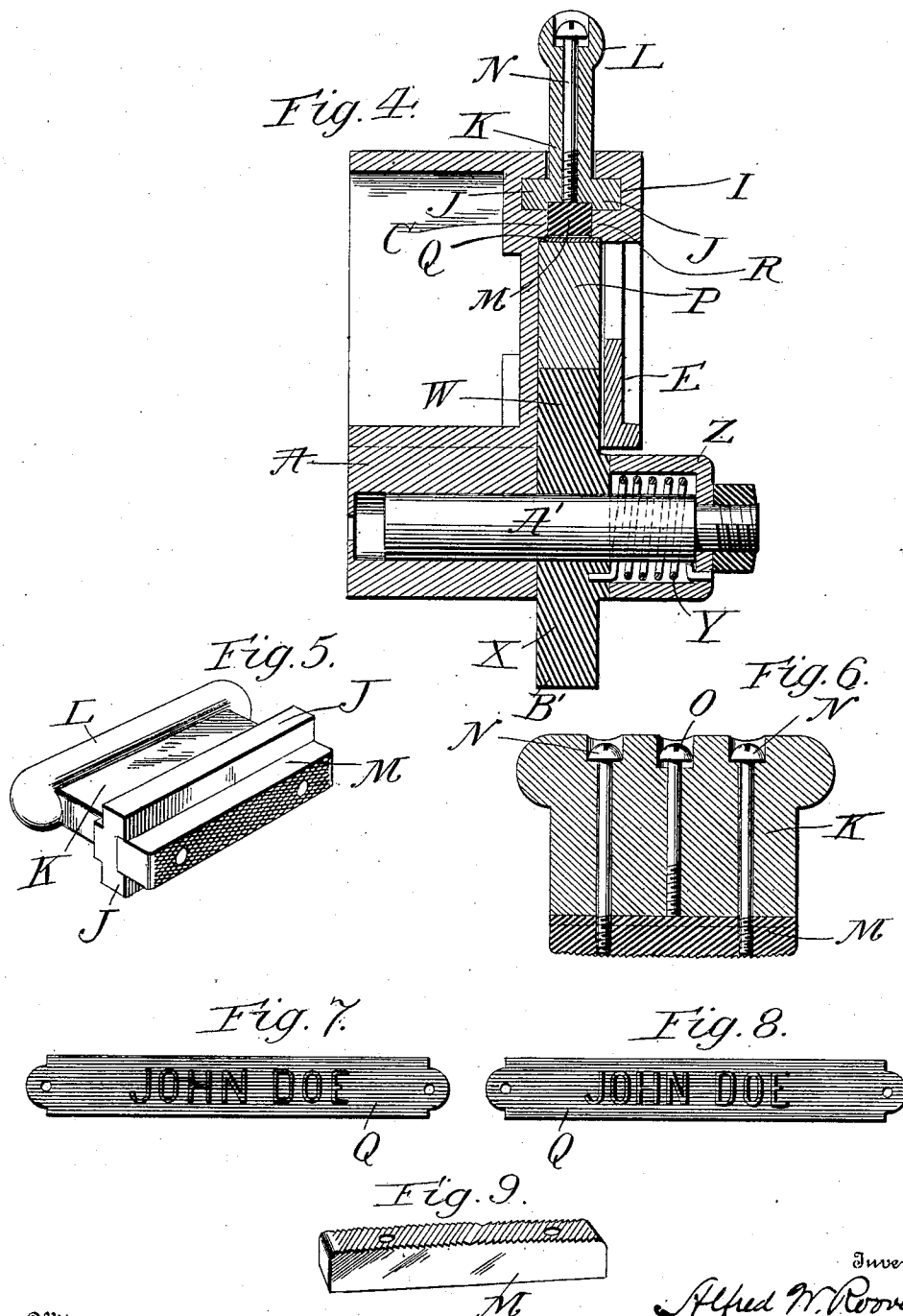
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ALFRED W. ROOVERS, OF BROOKLYN, NEW YORK.

ABRADING-MACHINE.

No. 897,408.

Specification of Letters Patent.

Patented Sept. 1, 1908.

Application filed August 19, 1905. Serial No. 274,878.

To all whom it may concern:

Be it known that I, ALFRED W. ROOVERS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Abrading-Machines, of which the following is a specification.

My present invention relates to an improved abrading machine, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein:

Figure 1 is a perspective view of the machine, partly broken away, with the clamping member or movable bed in its lowered position; Fig. 2 a side elevation, portions being broken away to show the interior of the mechanism, with the bed or clamping member in its elevated position; Fig. 3 a transverse vertical sectional view, on the line 3—3 of Fig. 2; Fig. 4 a transverse sectional view, on the line 4—4 of Fig. 2; Fig. 5 a perspective view of the slide or file-carrier; Fig. 6 a longitudinal sectional view thereof; Fig. 7 a plan view of a name-plate with raised letters thereon; Fig. 8 a similar view, showing the plate after the upper surface or coating has been removed from the letters; and Fig. 9 a perspective view of the file in its preferred form, detached from its holder.

Name-plates such as that shown in Fig. 7 have heretofore been made by machines patented to me jointly with Alexander H. Roovers, the strip of metal of which the plates were formed being of aluminum or like metal, and said plate when completed having a surface of the same appearance throughout. Under the present construction I propose to make the outer face of the plate of a color contrasting with the body of the metal; as for instance, blue and to thereafter remove the upper face of the letters, or the coating therefrom, so that the body of the plate and the letters will be of contrasting colors.

The object of the present invention is to produce a machine which will readily remove the upper face of the letters after the plate has been formed in the patented machine or otherwise.

Referring to the drawings, A denotes the bed or main body of the machine, provided with lateral extensions B by which it may be secured to any suitable support, as for in-

stance, to the side of the machine in which the name-plates are made.

Extending along the upper outer face of the body A is a rib C, in which is formed a way or channel D. A face plate E, which is secured to the body A by screws F and dowel-pins G, with intermediate spacing-blocks H at each end thereof, is provided with a similar groove or channel I. Said grooves or channels D and I are arranged diametrically opposite each other and form a way for the reception of the laterally-extending wings J of a file-carrier K. This carrier is provided with a rounded handle L, and with a groove or channel in its under face, in which is mounted a file M. The file is held in proper position by screws N and an intermediate adjusting screw O, the latter bearing upon the upper face of the file between the screws N and serving to determine the proper position of the file with reference to the carrier.

The preferred form of file is shown in Fig. 9. It is made slightly higher at its mid-length than at the ends, the latter receding or falling back from the plane of work and being rounded. The teeth have their ends arranged to point from the midlength of the file toward the opposite ends thereof. By reason of the central portion of the file being made higher than the ends, and the teeth being set in opposite directions from the center toward the ends, one set of teeth will abrade the exposed or raised surface and the other set will tend to burnish that portion which has been acted upon by the teeth which abraded the surface.

As will be seen upon reference more particularly to Figs. 1 and 4, the file occupies a position in an opening formed between the adjacent faces of the bed A and the plate E, the lower face of the file standing in alignment with the upper edge of a movable bed or clamping member P. This edge is flat and the name-plate, designated by the letter Q, rests thereon, as best shown in Fig. 4, and when said member P is elevated the plate is clamped between it, the under face of the rib C and a corresponding projection R formed upon the face plate E.

The clamping member is of the form best shown in Fig. 1, having reduced ends S, S' which, when said member is lowered, rest upon pins T, T', extending outwardly from the bed A. Plates U, U', secured to the bed or otherwise interposed between the face

plate and the bed, serve to prevent endwise movement of the clamping member P. Said clamping member is provided with a nose or projection V which stands in alinement with the rounded face of a cam W secured to or formed integrally with a handle or lever X. The lever is normally held in the position shown in Fig. 2 by a spring Y, one end of which is secured to the lever and its opposite end to a cap or shell Z which surrounds the spring and is mounted upon the outer end of an axle or support A' on which the cam lever is fulcrumed. Said lever is provided with a lug or projection B', which coacts with a stud or pin C' secured to the base or bed A to prevent the lever from being thrown too far in a reverse direction. The pin C' also serves to limit the upward movement of the cam lever, so that when the parts are in the positions shown in Fig. 2 the lever will be locked against the face of the nose or projection V, thus holding the clamping member P in its elevated position.

In operation the handle or lever X is drawn downward so that the clamping member P will gravitate or move down into the position shown in Fig. 1. The name-plate, which has been embossed, is passed through the opening in the plate E and placed upon the upper flat face of said clamping member. The lever is then turned upward into the position shown in Fig. 2, whereby the name-plate will be securely held between the upper face of said member, the rib C and the projection R. By moving the file-carrier back and forth in its way or channel the file will be traversed over the name-plate and remove the coating upon the upper face of the letters, and likewise a portion of the projecting parts of the letters if the file extend downward toward the clamping member P to a sufficient degree. If the coating applied to the strip from which the name-plates are made is of a contrasting color the letters, after the coating has been removed from the upper face thereof, will stand out in bold relief, thereby producing a more attractive article.

Having thus described my invention, what I claim is:

1. In a machine of the character specified, the combination of a fixed body portion provided with separated clamping faces against which the article to be abraded, adjacent to its edges, bears; a clamping member movable toward said faces; means for actuating and securing said member in position with the

body to be abraded resting thereon and clamped between it and the clamping faces of the fixed body; and an abrasive tool carrier, movable back and forth in line with the exposed face of the clamped article.

2. In a machine of the character specified, the combination of a main body portion having an opening therein, with clamping faces located upon opposite sides of the opening; a combined clamping and supporting member mounted within the opening; means for moving said member toward and from the clamping faces and securing it in its adjusted position, with the article to be abraded clamped between it and said faces; and a file-carrier also mounted in the opening and movable back and forth therein parallel with the work-supporting face of the clamping member.

3. In a machine of the character specified, the combination of a main body portion provided with a clamping face; a clamping bed or member carried by the body and movable toward and from the clamping face; means for actuating said member and securing the same in its adjusted position; a slide mounted in the body and movable therein in parallelism with the work-supporting face of the bed; and a file carried by the slide.

4. In a machine of the character specified, the combination of a body portion provided with a channel; a slide mounted therein; a file adjustably carried by said slide; a clamping bed or member movable toward and from the file, said member being provided with a nose or projection; a lever pivotally supported upon the body portion; and a cam carried by the lever, said cam coacting with the projection to hold the clamping bed in its elevated position.

5. In a machine of the character specified, the combination of a fixed body portion; a clamping bed; a file-carrier movable back and forth over said bed; and a file secured to the carrier, said file being higher at its center and having the teeth extending in opposite directions from each side of the center, whereby the abraded surface will be finished, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED W. ROOVERS

Witnesses:

REMSSEN RUSHMORE,
HENRY V. RAYMOND.