J. FRASER.

MACHINE FOR EDGING METAL PLATES.

APPLICATION FILED NOV. 8, 1909.

1,109,521.

Patented Sept. 1, 1914.

2 SHEETS—SHEET 1.

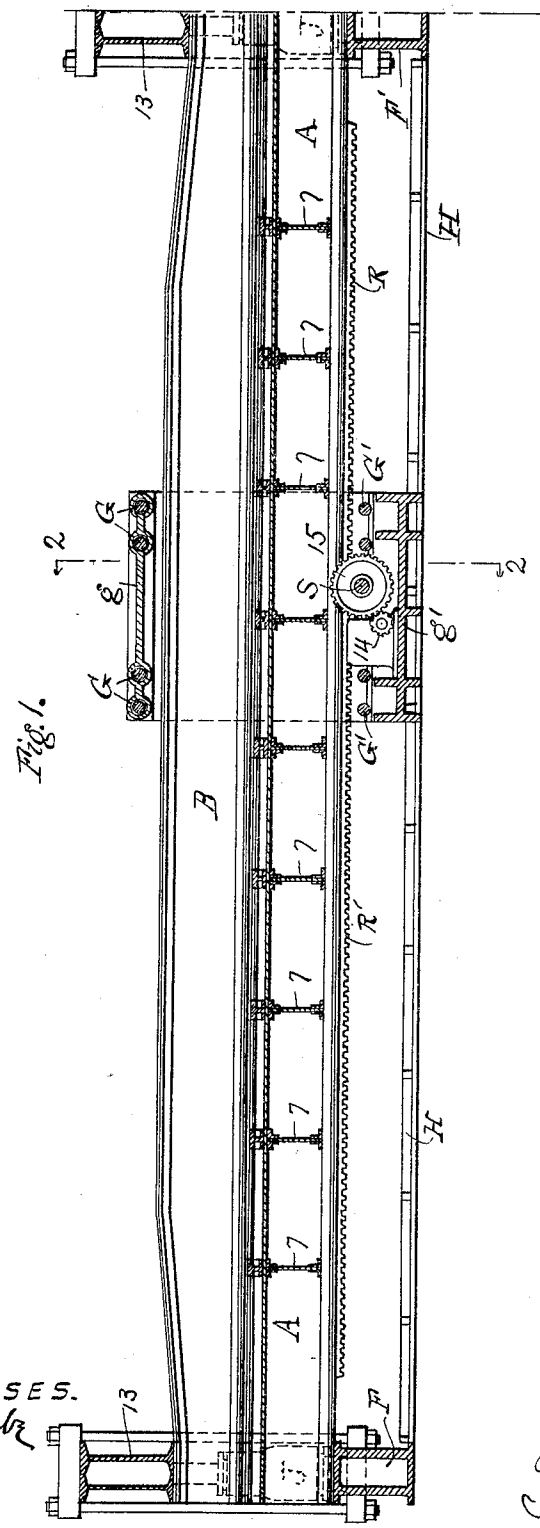


Fig. 1.

WITNESSES.

William Labbe

H. E. Keir

INVENTOR.

John Fraser,

BY

Howson and Howson

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

J. FRASER.

MACHINE FOR EDGING METAL PLATES.

APPLICATION FILED NOV. 8, 1909.

1,109,521. **Patented Sept. 1, 1914.**

2 SHEETS—SHEET 2.

Fig. 2.

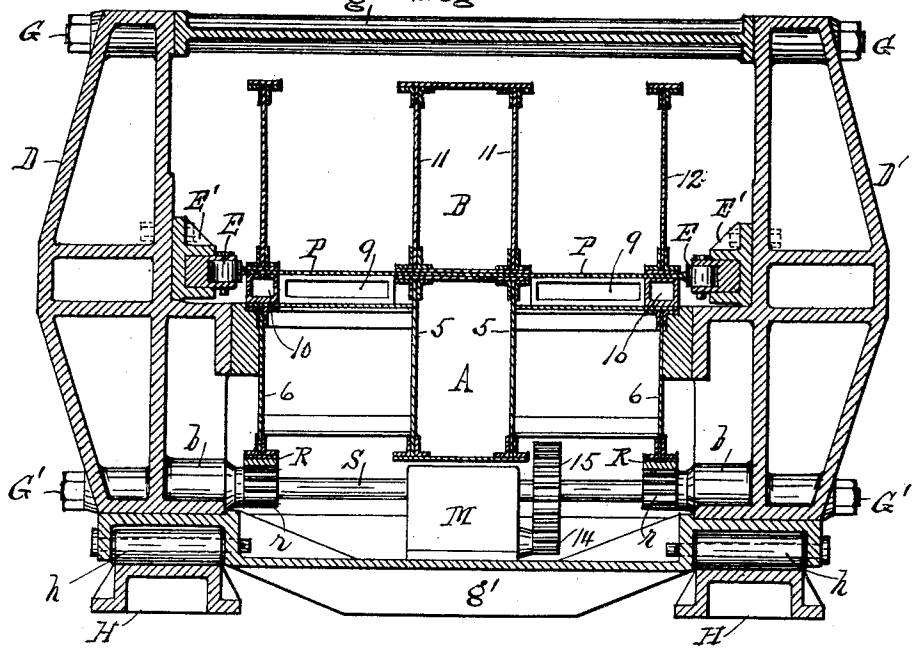
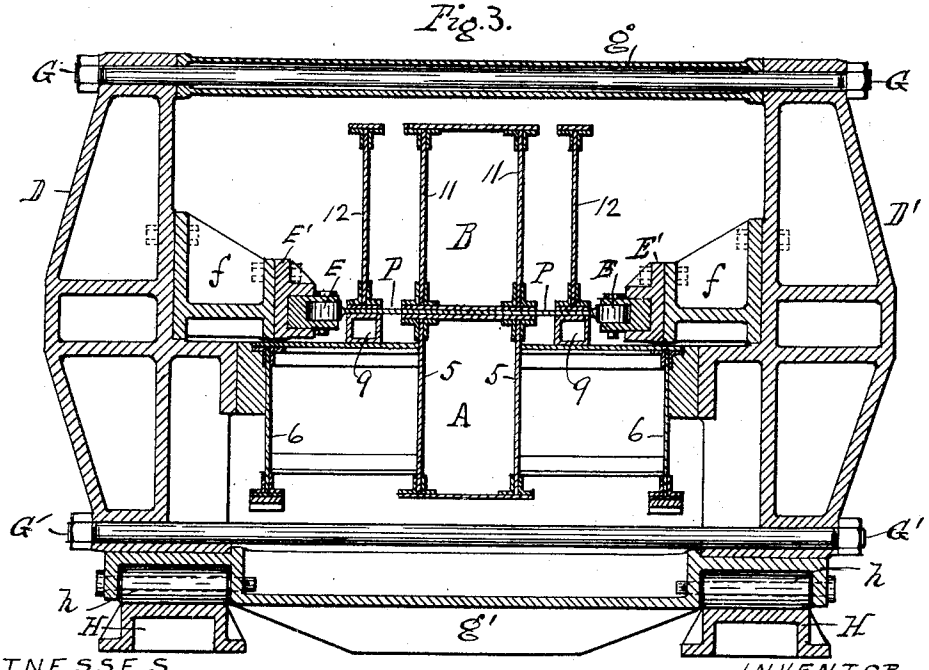


Fig. 3.

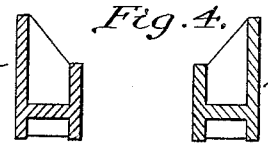


WITNESSES.

William Abbe

M. E. Keir

Fig. 4.



INVENTOR.

John Fraser.

Howson and Howson

Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN FRASER, OF HACKENSACK, NEW JERSEY.

MACHINE FOR EDGING METAL PLATES.

1,109,521. Specification of Letters Patent. Patented Sept. 1, 1914.

Application filed November 8, 1909. Serial No. 526,855.

To all whom it may concern:

Be it known that I, JOHN FRASER, a citizen of the United States of America, residing in Hackensack, in the county of Bergen, in the State of New Jersey, have invented certain new and useful Improvements in Machines for Edging Metal Plates, of which the following is a specification.

My present invention is primarily designed as an improvement upon plate-edging machines, such as that for which Thomas Gray and I jointly obtained Letters Patent No. 910,471, dated January 19, 1909.

The main object of my invention is to improve the construction of the machine whereby different widths of plates may be edged without having to adjust the tool-carrying standards themselves.

A further object is to improve the means for traversing the tool-carrying standards in machines in which the standards are arranged to travel.

In the accompanying drawings, Figure 1 is a longitudinal section of a plate edging machine in accordance with my invention; Fig. 2 is a transverse section on line 2—2, Fig. 1; Fig. 3 is a transverse section showing the tools adjusted for a narrower width of plate than in Fig. 2. Fig. 4 is a transverse section showing filling pieces of a size smaller than those illustrated in Fig. 3.

In the drawings I have shown my improvements as applied to a machine in which the table is stationary and the standards travel but my improvements whereby different widths of plates may be edged are applicable also to machines in which the table travels.

As in the machine of the above mentioned Fraser and Gray patent, the plates P to be edged are in the case illustrated, clamped between a stationary bed or work table A and a clamping frame or "strong back" B, while the tools for operating on the opposite edges of the plate are mounted upon traveling standards D, D^1.

The table girders comprise an inner pair of girders 5, 5, and side girders 6, 6, united to the central girders by cross-braces 7, (Fig. 1). The side girders 6, 6, are preferably of less height than the central girders 5 so as to permit of the mounting upon these side girders and braces 7 of laterally adjustable beams 10 with or without removable filler blocks 9.

The clamping frame or strong back B comprises central girders 11, 11, preferably in box form and laterally adjustable side girders 12, 12, these girders being secured at their opposite ends to transverse beams 13 supported on the work table or directly on the foundations F, F^1, (Fig. 1) through the medium of suitable hydraulic jacks J indicated by dotted lines in Fig. 1, so that by the operation of these jacks the whole clamping frame B may be raised sufficiently for the insertion or withdrawal of the plates, and lowered to clamp on the work table.

The two tool-carrying standards D, D^1 on opposite sides of the work table A are connected together above and below the work table by means of suitable bolts G, G^1, and distance pieces g, g^1, the whole constituting a traveling frame. The standards themselves are mounted upon antifriction rollers h adapted to travel upon longitudinal ways H on the floor. In the Fraser and Gray patent above referred to, these standards are made laterally adjustable together with the guide ways. According to my present invention I simplify this and avoid having to laterally adjust the standards themselves or their guide ways by mounting the tools E, which operate on the edges of the plates P, in tool-carriers E^1 laterally adjustable on the standards D, D^1. These carriers are adapted to be secured to the standards directly by bolts or otherwise as shown in Fig. 2, or they may be secured to interposed filling pieces f of suitable size which in turn would be bolted to the standards D, D^1. Thus where full width plates P are to be operated on, no filling pieces f will be required, and the tool carriers E^1 may be secured directly to the carriers D. In that case the girders 12 and the clamp or strong back and the beams 10 are set out laterally the full width to clamp near the edges of the wide plate, as seen in Fig. 2. When a narrow width of plate is to be operated on, as shown in Fig. 3, filling pieces f of suitable thickness are interposed between the tool carriers E^1 and the inner walls of the standards D, D^1, and the girders 12 and beams 10 are adjusted to their inner positions accordingly.

Instead of employing a screw to traverse the tool-carrying standards I mount upon the traveling frame (as for example on the spacing piece g^1), an electric motor M whose driving pinion 14 meshes with the gear

wheel 15 on a shaft S mounted in bearings *b* in the standards D, D^1, and this shaft S has pinions *r* meshing with racks R on the underside of the stationary table A. I prefer two racks R instead of one, so as to give a more even movement.

I claim as my invention

A machine for edging plates, having a stationary table and clamping frame in combination with traveling standards fixed with relation to each other on opposite sides of the work table, tool-carriers laterally movable and means whereby the tool carriers may be set and secured on the said standards in different positions laterally to edge different widths of plates.

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

JOHN FRASER.

Witnesses:
WALTER ABBE,
HUBERT HOWSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."