J. G. AUSTIN.

DEVICE FOR GUARDING MORTISING, DRILLING, AND THE LIKE MACHINERY.

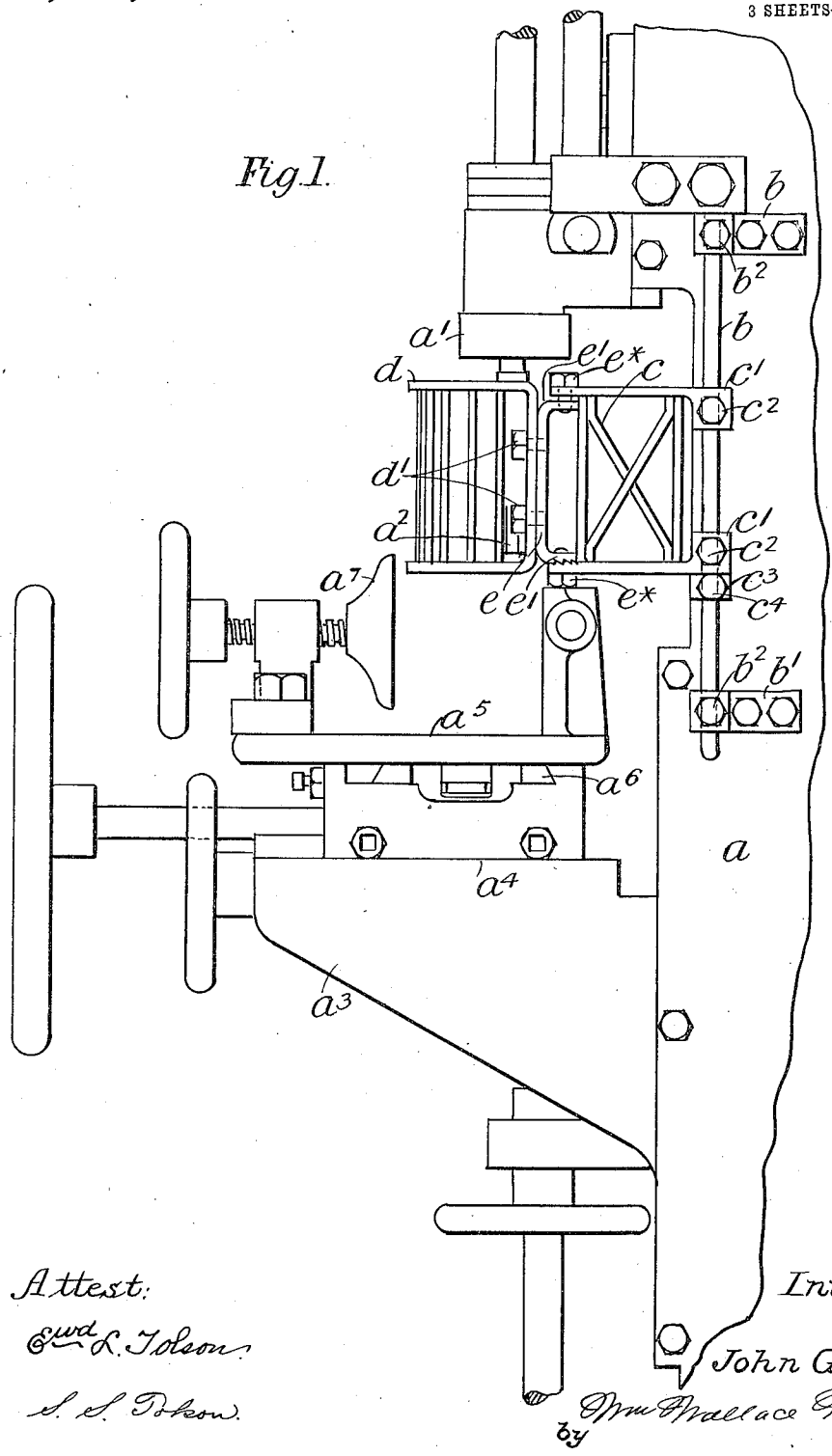
APPLICATION FILED JUNE 6, 1911.

1,036,414.

Patented Aug. 20, 1912.

3 SHEETS—SHEET 1.

Fig. 1.



Attest:

Edwd. L. Tolson.

S. S. Tolson.

Inventor:

John G. Austin,

by Wm. Wallace Price

Atty.

J. G. AUSTIN.

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3 SHEETS—SHEET 2.

Fig. 2.

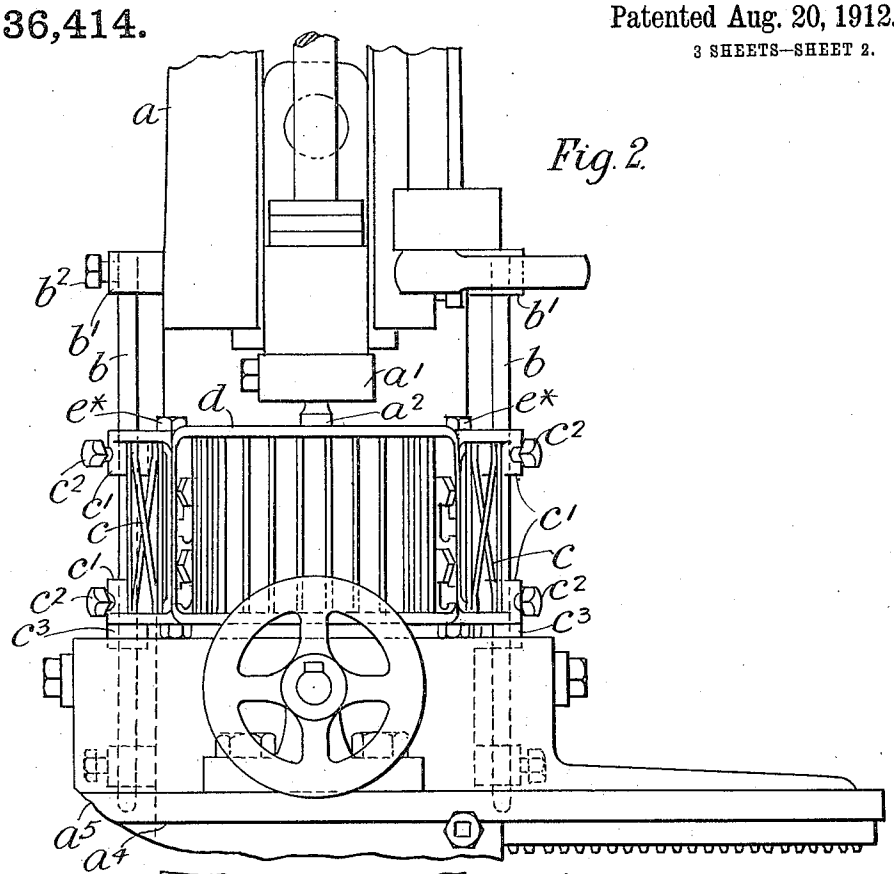
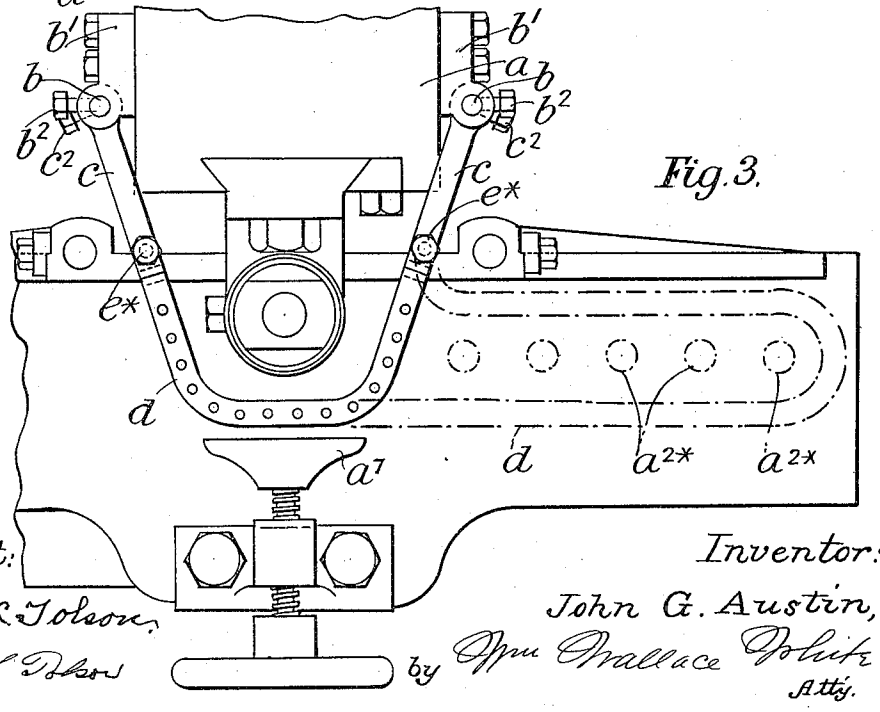


Fig. 3.



Attest:

Edwd. L. Tolson,

S. L. Tolson

Inventor:

John G. Austin,

by Wm. Wallace White

Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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3 SHEETS—SHEET 3.

Fig. 4.

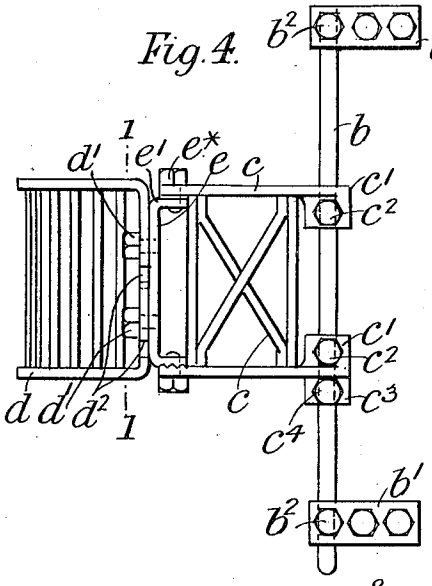


Fig. 6.

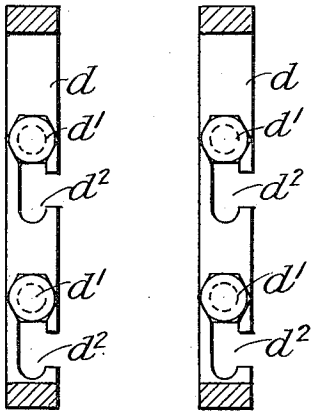


Fig. 5.

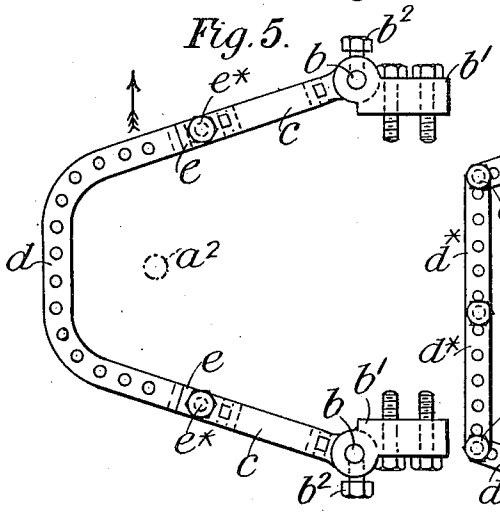


Fig. 9.

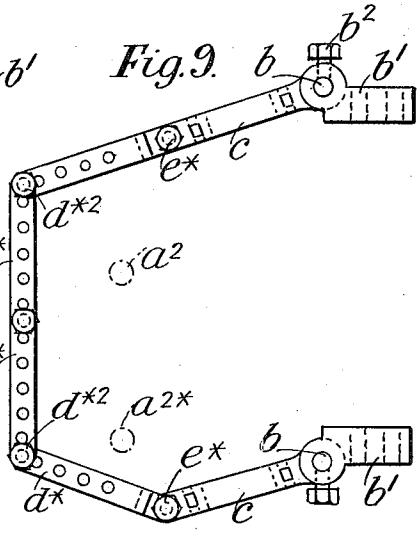


Fig. 7.

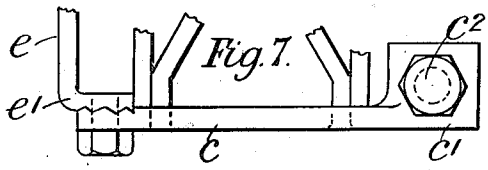


Fig. 10.

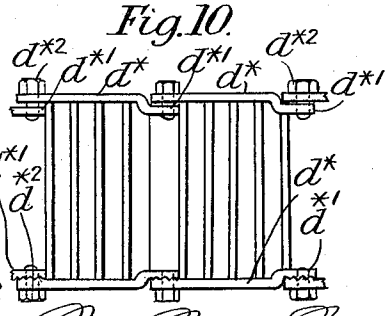
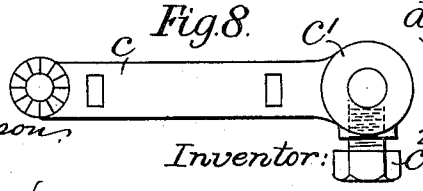


Fig. 8.



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Edwd. L. Tolson

S. S. Tolson

Inventor:

John G. Austin,

by Wm. Wallace Flint

Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN GILES AUSTIN, OF HASLEMERE, ENGLAND.

DEVICE FOR GUARDING MORTISING, DRILLING, AND THE LIKE MACHINERY.

1,036,414. Specification of Letters Patent. Patented Aug. 20, 1912.

Application filed June 6, 1911. Serial No. 631,513.

To all whom it may concern:

Be it known that I, JOHN GILES AUSTIN, a subject of the King of Great Britain, residing at Haslemere, Haslemere Road, Seven Kings, in the county of Essex, England, timber merchant, have invented a certain new and useful Device for Guarding Mortising, Drilling, and the Like Machinery, of which the following is a specification, reference being had to the drawings hereunto annexed and to the figures and letters marked thereon—this is to say

[illegible]

through eyes in the brackets and are fixed by set screws b^2 so that the guide rods b and the parts carried thereby, as hereinafter described, may be removed bodily when not required for use. Or the guide rods b might be supported in any other suitable manner or attached to any other convenient part of the machine by means of the brackets b' or other suitable holders or supports.

Mounted with capability of sliding upon the rods b are main or side guard frames c [illegible]

[illegible]

larly at Figs. 7 and 8, but a slight space is left between the upper lug e' and the projecting part of the frame c to enable the supplemental frame d to be turned to the desired angle by slacking the bolts e^* without separating the parts.

The bars e of the brackets or connecting pieces are removably connected with the corresponding bar of the supplemental frame d by means of bolts d' which pass through open sided slots d^2 in said bars and screw into tapped holes in the bars e of the brackets or connecting pieces and thus by slacking back the bolts d' and lifting the supplemental frame d and moving it away from the brackets or connecting pieces e laterally in the direction of the arrow in Fig. 6 the bolts d' may be caused to pass out through the side openings of the slots d^2 and the supplemental frame d detached from the side frames c when it is not required for use or to replace it by a differently shaped supplemental frame or frames d or otherwise.

The slots d^2 in the supplemental frame d also serve the purpose of enabling the height of the supplemental frame d to be adjusted according to the nature of the work in hand. Or when the supplemental frame d is temporarily not required, during the adjustment of the tools or for other reasons, one side of it may be similarly disconnected so that the device may be swung out of the way until it is again needed.

The supplemental frame d is provided with vertical rails or it might be lattice work or the like in order to prevent the operator placing his hands under the tool.

The shape of the supplemental frame d may be varied to suit the particular machine to which it is applied or the work performed on the machine and at Fig. 3 is shown by dotted lines an extending supplemental frame d which is adapted to surround a number of drills or the like a^{2*} but it will be understood that the shape of the supplemental frame may be otherwise varied according to circumstances.

In the example given at Figs. 9 and 10 is shown a slight modification in which the supplemental frame d is made up of a number of sections d^* connected by means of lugs $d^{*\prime}$ the bottom lugs having milled meeting faces to prevent their accidentally shifting and fastened together by means of screw studs d^{*2} by which arrangement the supplemental guard frame d may be built up to inclose any arrangement of tools within certain limits.

In Fig. 9 a mortising tool is represented by the dotted circle a^2 and a drill by the dotted circle a^{2*}.

Although the invention is illustrated and described in connection with a mortising machine it will be understood that it is equally applicable to other machines of a similar class such for example as drilling, punching, shearing and band sawing machines and that the brackets e may be adjustably fixed in any other convenient manner or position than that shown in the drawings while in some cases the brackets or connecting pieces e may be dispensed with and the supplemental frame or frames d provided with lugs to match the lugs of the top and bottom bars of the side frames c.

By the means hereinbefore described a simple and inexpensive device is obtained which is applicable to a variety of machines and by the aid of which the workman will be safeguarded against the serious accidents which now frequently occur.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed I declare that what I claim is:—

1. In a device of the character referred to, vertical guide rods, means for fixing said rods in position on the machine, side frames slidably and pivotally mounted upon said guide rods and provided with means for fixing the same at any desired elevation or angle and limiting their descent, and a front or supplemental frame or frames removably and adjustably connected with the side frames substantially as herein shown and described and for the purpose stated.

2. In a device of the character described, in combination, guide rods adapted to be secured to a machine, side guard frames mounted upon said rods, and a supplemental frame adjustably supported upon said side frames, said side frames and said supplemental frame being provided with roughened engaging surfaces, and means for clamping said side frames and said supplemental frame together.

JOHN GILES AUSTIN.

Witnesses:
C. MELBOURNE WHITE,
C. H. WHITE.

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