No. 793,113. PATENTED JUNE 27, 1905.

G. F. WALKER.

WORK BENCH.

APPLICATION FILED JUNE 15, 1904.

Fig. 1.

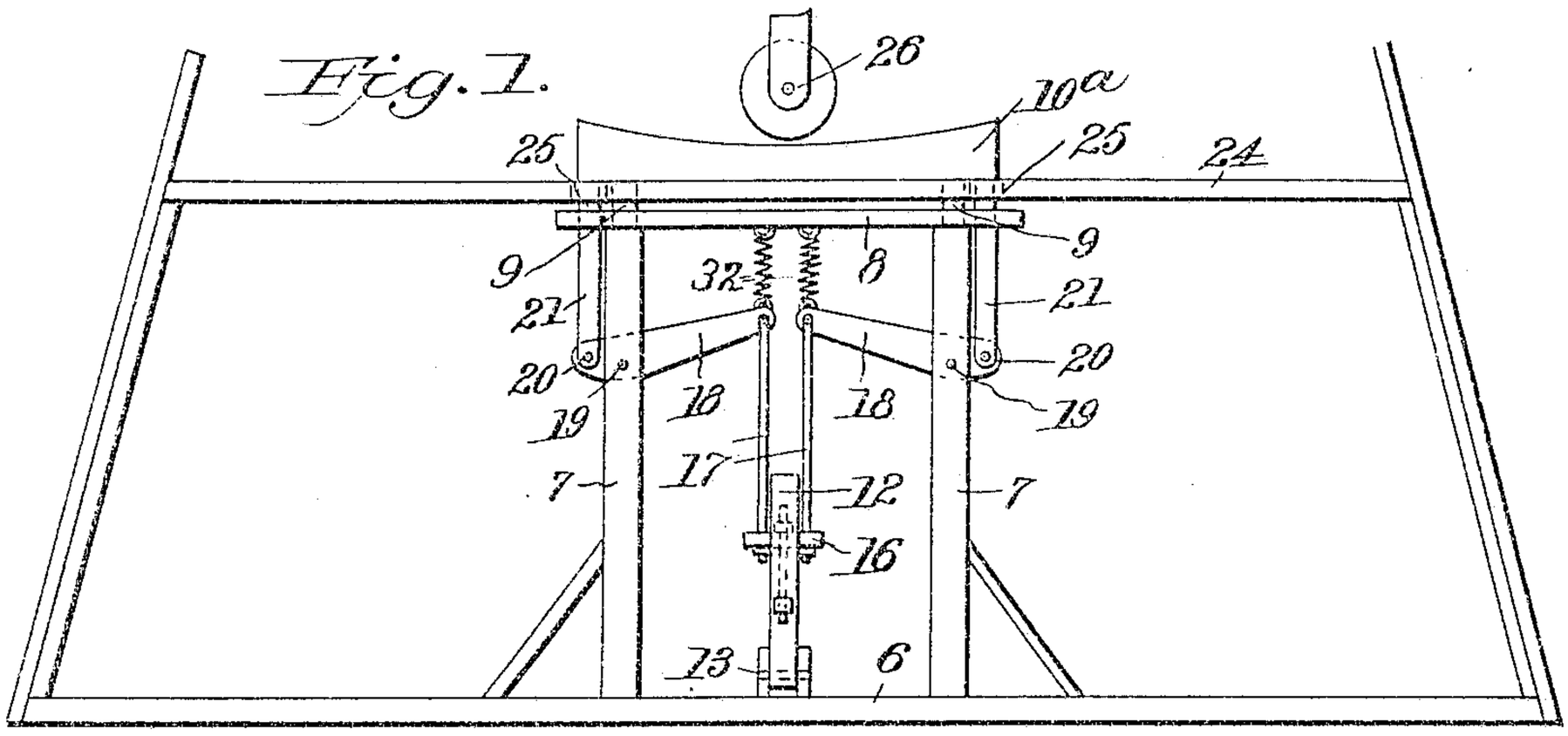


Fig. 2.

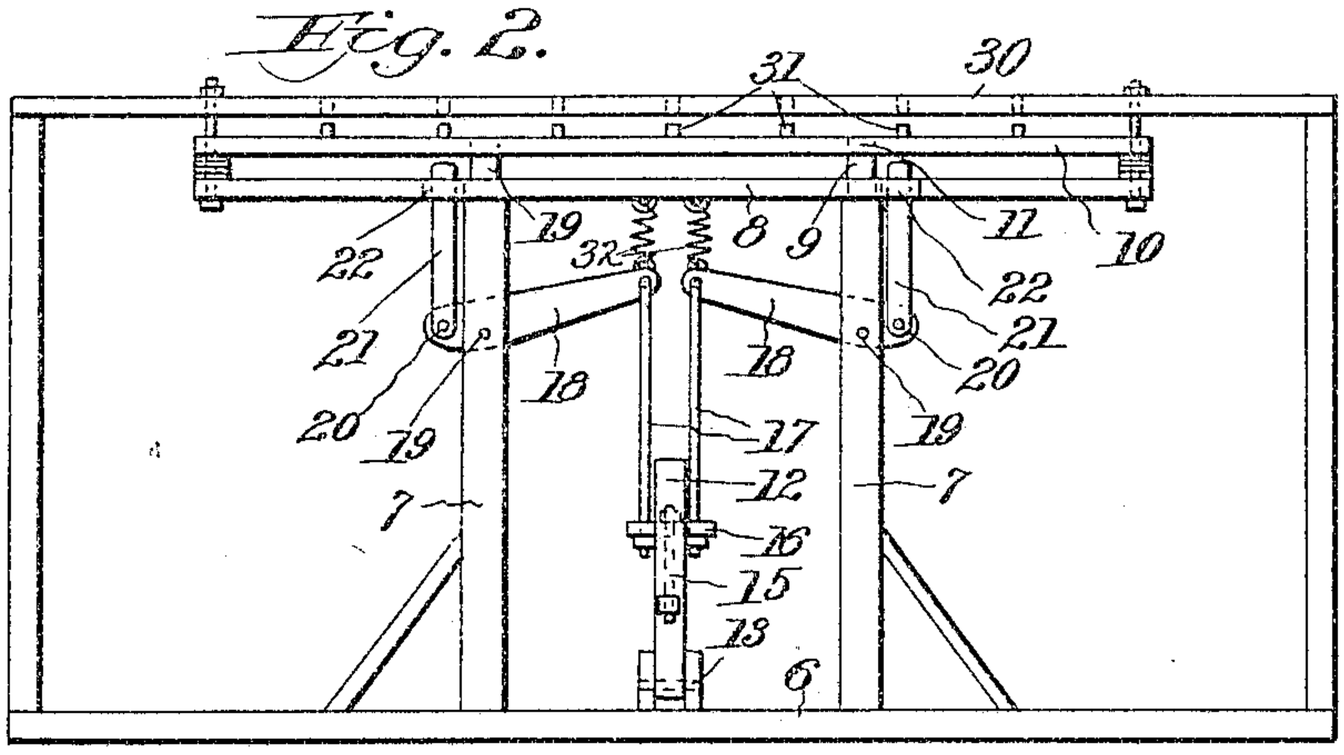
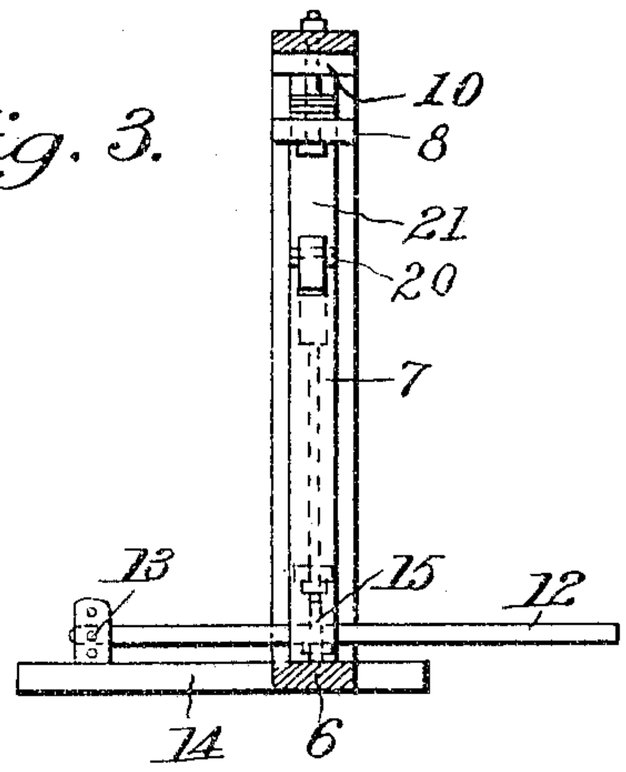


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE F. WALKER, OF KITTANNING, PENNSYLVANIA.

WORK-BENCH.

SPECIFICATION forming part of Letters Patent No. 793,113, dated June 27, 1905.

Application filed June 15, 1904. Serial No. 212,690.

To all whom it may concern:

Be it known that I, GEORGE F. WALKER, a citizen of the United States, residing Kittanning, in the county of Armstrong and State of Pennsylvania, have invented new and useful Improvements in Work-Benches, of which the following is a specification.

This invention is an apparatus for lifting a bench, bed-plate, bar, or the like and is capable of application to a variety of uses, such as for lifting the bed-plates of leather pressing or rolling machines, lifting presses containing a series of punches to punch holes in wood, metal, or leather, or for mortising, stamping, and die-pressing.

Referring to the accompanying drawings, Figure 1 is a front elevation showing the application of the invention to a leather rolling or pressing machine. Fig. 2 is a front elevation showing its application to a punching-machine. Fig. 3 is a side elevation.

Referring specifically to the drawings, similar numerals indicate the same parts throughout the several views except where the different nature of the machines require the indication of parts specific thereto.

In the drawings, 6 indicates a sill on which are mounted two posts 7, these posts being connected at the top by an iron plate 8. The plate is mortised to receive tenons 9, which tenons project above the top of the plate, forming guides for a bar 10, which carries the punches or cutters in punching-machines, as in Fig. 2. This bar has mortises 11, in which the projecting tenons 9 of the post fit, and the tenons serve as guides for the vertical movement of the bar. Such movement is effected by an arrangement of compound levers, comprising a treadle 12, which is pivoted at 13 between ears on a wooden sill 14 and is connected by a rod 15 to the middle of the cross-bar 16, the ends of which are connected by rods 17 to levers 18, which are let through mortises in the post 7 and fulcrumed on pivots at 19. Connected to the other ends of these levers by pivots at 20 are struts 21, the lower ends of which are forked over the levers. These struts work through openings (indicated at 22) in the plate 8, and their upper ends contact with the under side of the bar 10.

When the treadle is depressed, the bar 10 is lifted, as indicated in Fig. 3, and its movement may be utilized for any purpose desired or necessary.

In Fig. 1 the device is illustrated as applied to lifting the bed-plate of a leather pressing or forming machine. Said bed-plate is indicated at 10^a and rests on a table 24 above openings 25, through which the struts 21 work. The pressing or forming wheel or roller is indicated at 26, driven and supported by suitable mechanism. To apply the roller to the leather, the latter is placed on the bed-plate, and by depression of the treadle the latter is lifted, forcing the leather to contact with the roller for treatment in the usual manner.

In the punching-machine illustrated in Fig. 2 the invention is disposed under a punching-table, (indicated at 30,) the bar 10 being provided with a series of punches 31. When the bar 10 is lowered, a sheet of leather, wood, tin, or the like may be inserted between the punches and the under side of the table, and pressure applied to the treadle will cause the bar 10 to lift and punch holes in such material. Dies, chisels, cutters, or the like may be substituted for the punches shown, and other utilizations of the invention will readily occur to those skilled in the art. The weight of the parts lifted will as a rule be sufficient to return the levers and treadle to their original position. If not, springs, as at 32, may be employed for such purpose.

What I claim as new, and desire to secure by Letters Patent, is —

The combination of posts having projecting tenons at their upper ends, a plate connecting the posts and having mortises through which the tenons project above the plate to form guides and also having apertures beside said tenons, a vertically-movable bar, for tools or material, extending across the tops of the posts above the plate and having mortises in which said tenons fit to guide the movement of the bar, operating-levers fulcrumed on the posts, and struts extending between the levers and the bar, through said apertures.

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

GEORGE F. WALKER.

Witnesses:

J. S. ROSENBERGER,

D. A. SLAGLE.