

I. WOLFELD AND A. KOHL.
MACHINE FOR SETTING SNAP FASTENERS ON GARMENTS.
APPLICATION FILED MAY 28, 1920.

1,387,530.

Patented Aug. 16, 1921.

2 SHEETS—SHEET 1.

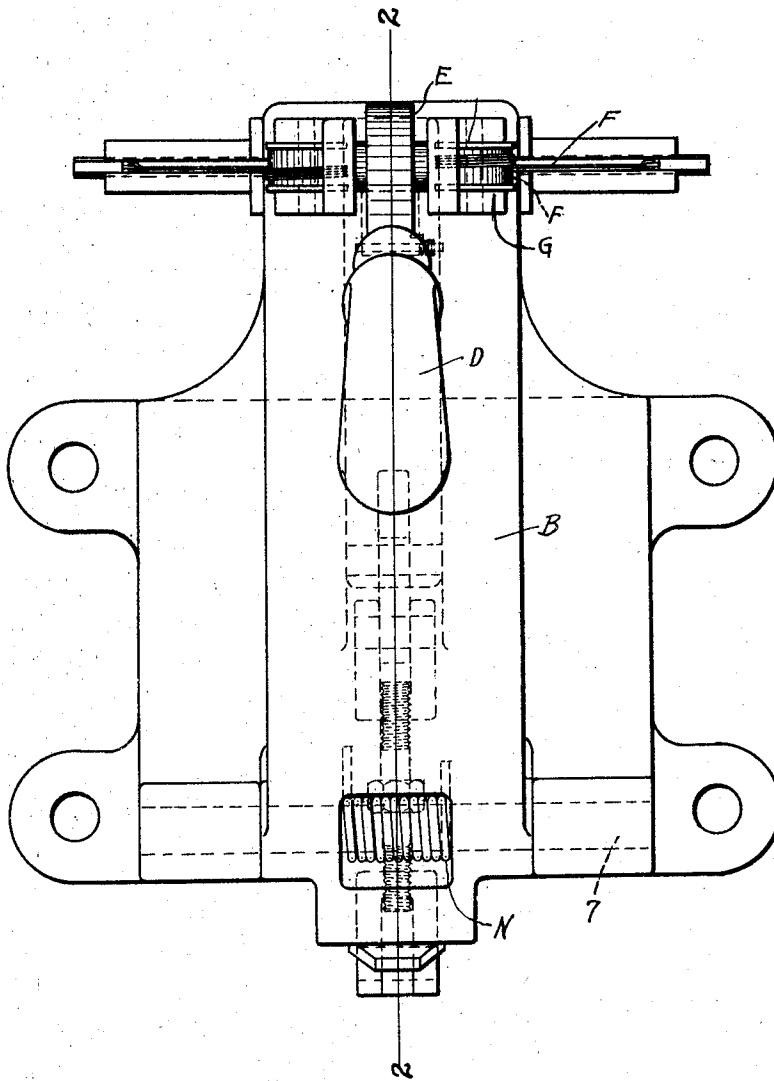


FIG. 1

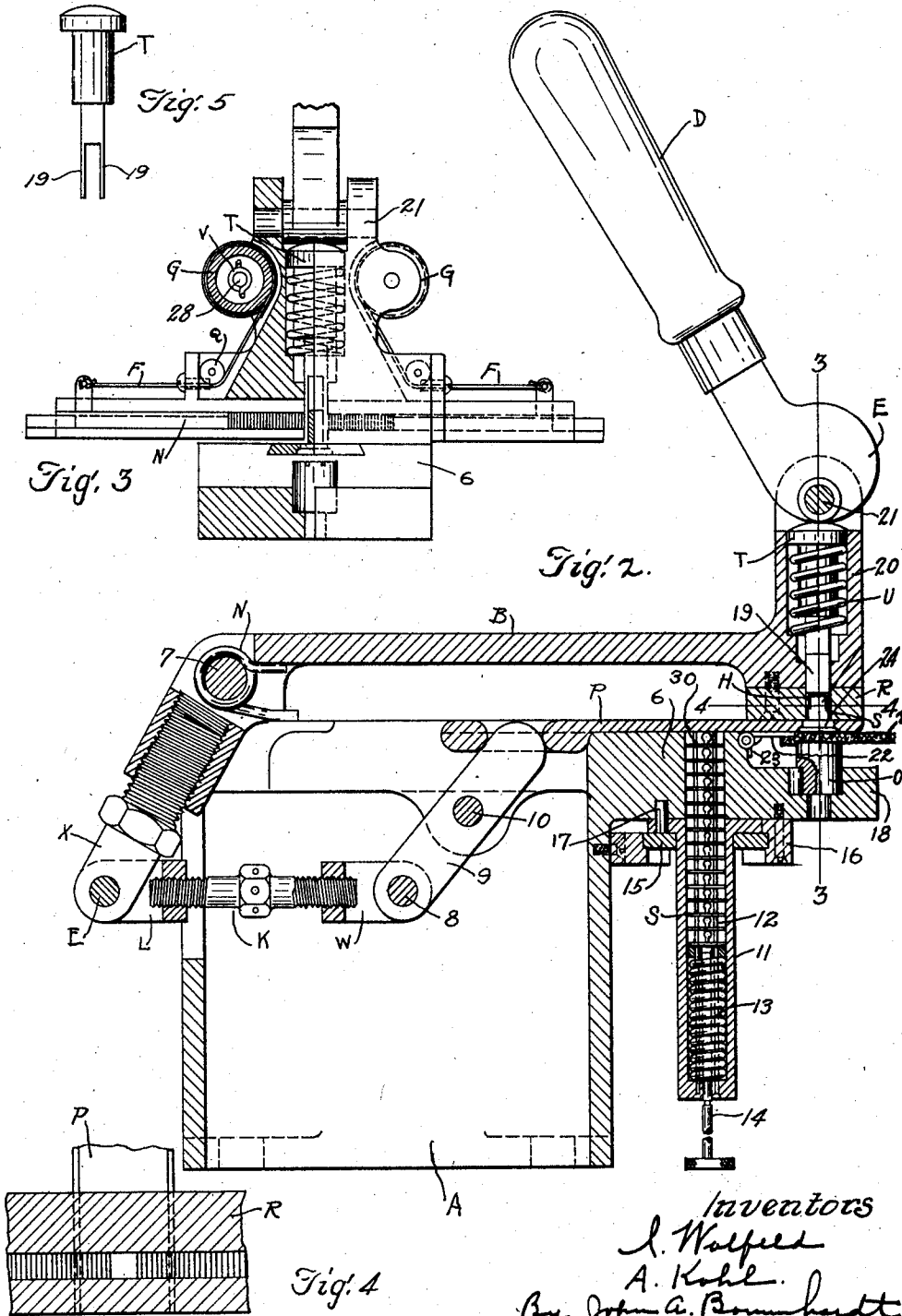
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UNITED STATES PATENT OFFICE.

ISADOR WOLFELD AND ADOLPH KOHL, OF CLEVELAND, OHIO.

MACHINE FOR SETTING SNAP-FASTENERS ON GARMENTS.

1,387,530.

Specification of Letters Patent. Patented Aug. 16, 1921.

Application filed May 28, 1920. Serial No. 384,819.

To all whom it may concern:

Be it known that we, ISADOR WOLFELD and ADOLPH KOHL, citizens of Austria and United States, respectively, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Machines for Setting Snap-Fasteners on Garments, of which the following is a specification.

This invention relates to machines for setting snap fasteners on garments or the like, the setting being effected by means of staples driven through the fastener and into the garment. These fasteners usually include a base having a rounded head, the base being provided with four holes by which the fasteners are ordinarily sewed onto the garment. By means of the present machine, the fasteners can be stapled on the garment in much less time and at much lower cost.

The machine includes means for feeding staples from opposite sides to a position under a plunger which drives the staples through the holes in the snap-fastener, and through the garment, and clenches the staples thereunder. Means are provided for feeding the staples, both feeds being automatic with the operation of the machine.

In the accompanying drawings Figure 1 is a plan of the machine. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a front elevation partly in section on the line 3—3 of Fig. 2. Fig. 4 is a detail in section on the line 4—4 of Fig. 2. Fig. 5 is a detail of the plunger.

The machine includes a base A which may be mounted on any suitable support, and this base has a head 6 on which slides a feeder plate P which moves in an undercut groove in the head. B is an arm which swings up and down on a hinge at 7 and is normally lifted by the spring N. The rear end of the arm is connected by an adjustable link X, pin E, link L, adjusting screw K, link W and pin 8 to a lever 9 which is pivoted at 10 in the frame of the machine, the upper end of the lever engaging a rounded opening in the feeder plate P. When the arm B is swung up the action causes the lever 9 to retract the feeding plate P, and when the arm B is swung down, the same connections advance the plate P, to carry one of the fasteners to setting position.

The fasteners are contained in a tubular magazine 11, depending from the head 6,

where they are retained in proper alinement by being threaded on two or more wires 12 which pass through the holes in the fasteners, and the fasteners are fed upwardly from the magazine by a spring 13 which may be adjusted by a screw 14 working through the bottom of the magazine. The magazine is supported by a plate 15, bracket 16, and dowel pin 17, fixed to the overhang of the head 6.

The clenching die O sets in a socket in the lip 18 at the front of the head, and co-operates with a plunger T which works in a recess in a casing 20 at the front end of the head and having two forks or branches indicated at 19 which work through slots in a guide piece R fixed to the arm, directly above the die O. The plunger is normally lifted by a spring U but may be depressed by a cam E on a handle D which is pivoted at 21 to the upper end of the casing 20.

A small flat plate 22 is supported by a spring 23 against the underside of the feeder plate P, and acts as a bridge which prevents the fastener from dropping out of the hole 24 in the feeder plate P as the plate advances from the magazine to the setting position.

The staples S are strung on guide bars H projecting from opposite sides of the arm B, these guides leading to the slots through which the branches 19 of the plunger work. The staples are advanced by sliding blocks N connected by cords F to spring rollers G also mounted on the arm, the cords being guided over small wheels Q, and the rollers being actuated by coil springs V inclosed in the rollers and connected at one end to the rollers and at the other end to the pins 28 on which the rollers turn, after a fashion of a shade roller.

In operation the arm B is lifted or swung up on its pivot 7. This opens the mouth of the machine and permits the edge of the garment J to be inserted over the die, and also retracts the feeding plate P until its opening 24 is in line with the magazine. The spring in the magazine lifts the upper fastener 30 into said opening, where it is stopped by a shoulder around the opening. At the same time the staples are fed inwardly against the sides of the guide R, under the prongs 19 of the plunger T. The arm B is then swung down and registers the plunger with the opening in the plate P, which plate in the meantime is advanced to carry the fastener into position over the

die. The handle D is then swung down and the cam forces the plunger T downwardly and its prongs 19 engage the top of the staples and force said staples down through the holes in the fastener and through the garment below and against the die O by which they are clenched. The garment J can then be slid along to the next position, if a row of fasteners are to be attached, and the operation repeated.

The invention is not limited to the exact form shown, but various modifications may be made within the scope thereof.

We claim:

1. The combination of a clenching die, a swinging arm, a pair of staple guides carried by said arm at opposite sides thereof, a plunger carried by the arm and swinging therewith toward and from the die, and adapted to force staples from said guides through the work and against the die, means carried by the arm to feed staples to each of said guides, and means carried by the

arm to advance the plunger with respect to the arm.

2. The combination of a clenching die, means to feed fasteners successively to work upon said die, a swinging arm operatively connected to said means, and adapted to swing toward and from said die, means carried by the arm to feed staples successively into position to register with said fasteners, and means carried by the arm to force the staples through said fasteners and work and against said die, comprising a plunger carried by the arm, and a cam lever pivoted on the arm and engaging the plunger to advance the same, said lever also forming a handle to swing the arm.

In testimony whereof, we do affix our signatures in presence of two witnesses.

ISADOR WOLFELD.
ADOLPH KOHL.

Witnesses:

JOHN A. BOMMARDT,
WM. J. MARTIN.