

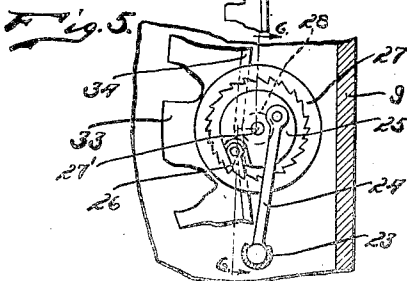
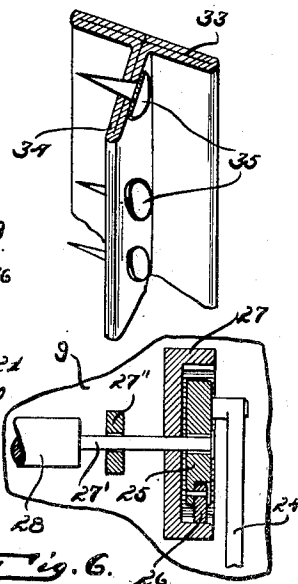
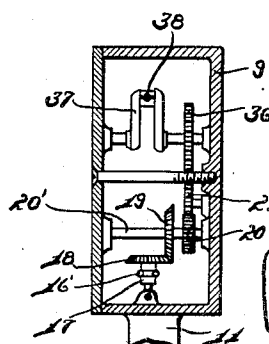
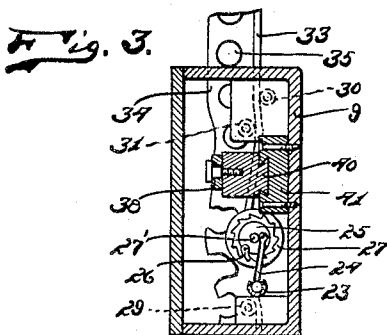
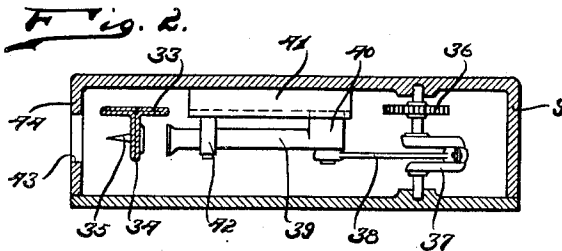
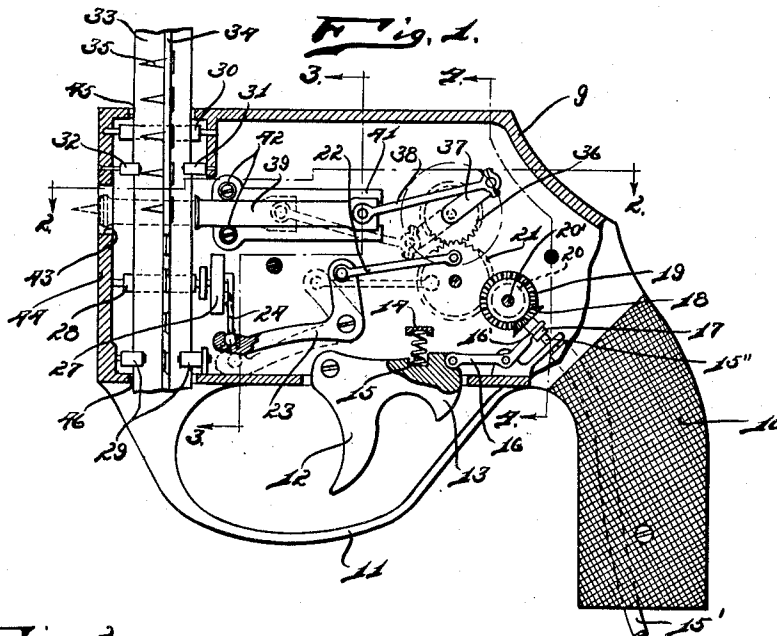
Nov. 19, 1929.

S. TATAR

1,736,636

TACK DRIVER

Filed June 14, 1928



INVENTOR.

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BY

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STANLEY TATAR, OF DETROIT, MICHIGAN

TACK DRIVER

Application filed June 14, 1928. Serial No. 285,283.

My invention relates to a new and useful improvement in a tack driver, and has for its object the provision of a tack driver of this class which will be simple in structure, economical of manufacture and highly efficient in use.

Another object of the invention is the provision of an electrically driven tack driver.

Another object of the invention is the provision of an electrically operated means for driving the tack and for fitting a tack strip into proper position for driving.

Another object of the invention is the provision of means for retarding the tack carrying strip during the driving operation.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by a reference to the accompanying drawings which form a part of this specification and in which,

Fig. 1 is a side elevational view of the invention with a part broken away and parts shown in section.

Fig. 2 is a view taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 1.

Fig. 5 is an enlarged fragmentary view of Fig. 3.

Fig. 6 is a fragmentary view taken on line 6—6 of Fig. 5.

Fig. 7 is a fragmentary perspective view of the tack carrying strip.

The invention comprises the casing or housing 9 having a handle 10 projecting downwardly therefrom to resemble in general contour a pistol. A finger guard 11 extends around the trigger 12 which is pivotally mounted on the casing and provided with a rearwardly extending heel 13. A bracket 14 serves to engage one end of a spring 15, the other end of which engages in a recess formed in the heel 13 and serves to normally retain the trigger 12 in the position shown in Fig. 1.

Projected through the handle 10 is a flexible shaft 15' which connects to a shaft 15'' on which is fixedly mounted a bevel gear 18 adapted to mesh with the gear 19 which is fixedly mounted on the shaft 20'. Pivotally connected at one end to the heel 13, is an arm 16, the angularly turned end 16' of which is formed as a yoke to embrace the bushing or collar 17. The construction and arrangement is such that upon a rocking of the trigger 12 the gear 18 may be moved into mesh and out of mesh with the gear 19, this gear being normally retained in mesh through the pressure of the spring 15 on the trigger 12. In beginning the operation the trigger 12 would be rocked so as to disengage the gear 18 from the gear 19, upon which the flexible shaft 15' would be set into operation. A releasing of the pressure on the trigger 12 would then permit a movement of the gear 18 into mesh with the gear 19.

Fixedly mounted on a shaft 20' is a gear 20 adapted to mesh with a gear 21. Connected eccentrically, at one end, to one face of the gear 21 is an arm 22 which is pivotally connected at its opposite end to a bell crank 23 which is rockingly mounted in the housing 9. The opposite end of the bell crank is connected by a ball and socket arrangement to an arm 24 which is pivotally connected at its opposite end to a disc 25 positioned interiorly of a ring 27 having internal ratchet teeth formed thereon. A dog 26 is mounted on the disc 25 and adapted to engage the ratchet teeth of the ring 27.

The ring 27 is fixedly mounted on the shaft 27' which extends through the bracket 27'' and is also journaled in the wall 44 of the casing 9. Fixedly mounted on the shaft 27' is a roller 28 which rotates in unison therewith. Rollers 29 are mounted in the casing 9, as are likewise rollers 30, 31 and 32, these rollers engaging opposite sides of the tack carrying strip 33 which is doubled upon itself at its medial line to provide the outwardly extending tack carrying portion 34, through which are projected tacks or other similar securing means 35.

Meshing with the gear 21 is a gear 36 adapted to effect a rotation of a crank 37

which is pivotally connected to one end to the link 38, the other end of the link being pivotally connected to the plunger or driving member 39. This driving member 39 is provided on its under surface with a dovetailed projection 40 engaging in a dovetailed groove formed in the bracket 41 mounted on the side wall of the housing 9.

The strip 33 is led through registration openings 45 and 46 formed in the top and bottom of the housing respectively. An opening 43 is formed in the forward wall 44 of the housing. Rollers 42 serve to engage opposite sides of the plunger or driving member 39.

In operation, after the strip has been placed in engagement with the various rollers mentioned and the shaft 15'' is set into rotation, the rocking of the trigger 12 will bring the gear 18 into mesh with the gear 19, effecting a rocking of the bell crank 23. This will cause a reciprocation of the disc 25, the disc 25 in moving in one direction, effecting a rotation of the ring 27 and the roller 28, this roller 28 serving as a feed roller. The movement of the ring 27 is such that the strip 30 will be fed by the roller 28 downwardly at each operation a distance equal to the space between the tacks 35, so that, after each movement, the strip 33 will be in a position to bring one of the tacks 35 into registration with the opening 43. At the same time, the gear 36 is set into rotation to effect reciprocation of the plunger or driving member 39 which will tear the tack 35 from the strip and force it outwardly through the opening 43, thus driving it into the material in which it is desired to drive the same.

In view of the weight of the casing and the mechanism therein, sufficient weight is provided to resist the reaction incident to the driving of the tack 35 so that an efficient and rapid operating machine is provided.

With a machine constructed in this manner, ease and speed in driving tacks and other securing means is effected, and the driving of tacks into comparatively inaccessible positions becomes possible without the marring of baseboards or other defaceable articles adjacent thereto.

While I have illustrated and described the preferred form of my invention, I do not wish to limit myself to the precise details of structure shown, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a tack driver of the class described: a housing; driving mechanism in said housing; feeding mechanism in said housing; a gear for operating said driving mechanism and said feeding mechanism; a flexible shaft for rotating said gear, said shaft projecting out-

wardly from said housing, said gear being movable to operative and inoperative position; and a rockable member for moving said gear to operative and inoperative position.

2. In a tack driver of the class described; a housing; driving mechanism in said housing; feeding mechanism in said housing; a gear for operating said driving mechanism and said feeding mechanism; a flexible shaft for rotating said gear, said shaft projecting outwardly from said housing, said gear being movable to operative and inoperative position; a rockable member for moving said gear to operative and inoperative position; and a spring for normally retaining said gear in operative position.

3. In a tack driver of the class described; a housing; a rotatable gear; a slidably mounted driving member; connecting means for connecting one end of said driving member eccentrically of said gear for effecting reciprocation of said driving member upon rotation of said gear; and rollers engageable with opposite sides of said driving member.

4. In a tack driver of the class described, having a feeding mechanism and a driving mechanism: a movable gear for operating said feeding and said driving mechanism, said gear being movable to operative or inoperative position; a lever pivotally mounted in said housing, intermediate its ends, and connected at one end to said gear, the rocking of said lever effecting a movement of said gear to operative and inoperative position; and a rockable member pivotally connected at one end to said lever for effecting a rocking of the same.

5. In a tack driver of the class described, having a feeding mechanism and a driving mechanism: a movable gear for operating said feeding and said driving mechanism, said gear being movable to operative or inoperative position; a lever pivotally mounted in said housing, intermediate its ends, and connected at one end to said gear, the rocking of said lever effecting a movement of said gear to operative and inoperative position; a rockable member pivotally connected at one end to said lever for effecting a rocking of the same; and resilient means for normally resisting rocking movement of said rockable member.

In testimony whereof I have signed the foregoing specification.

STANLEY TATAR.