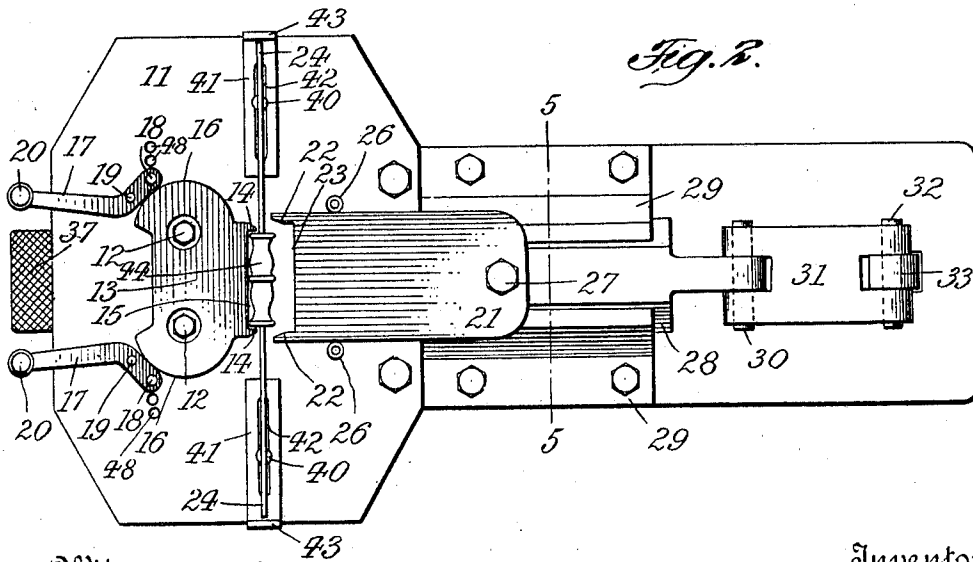
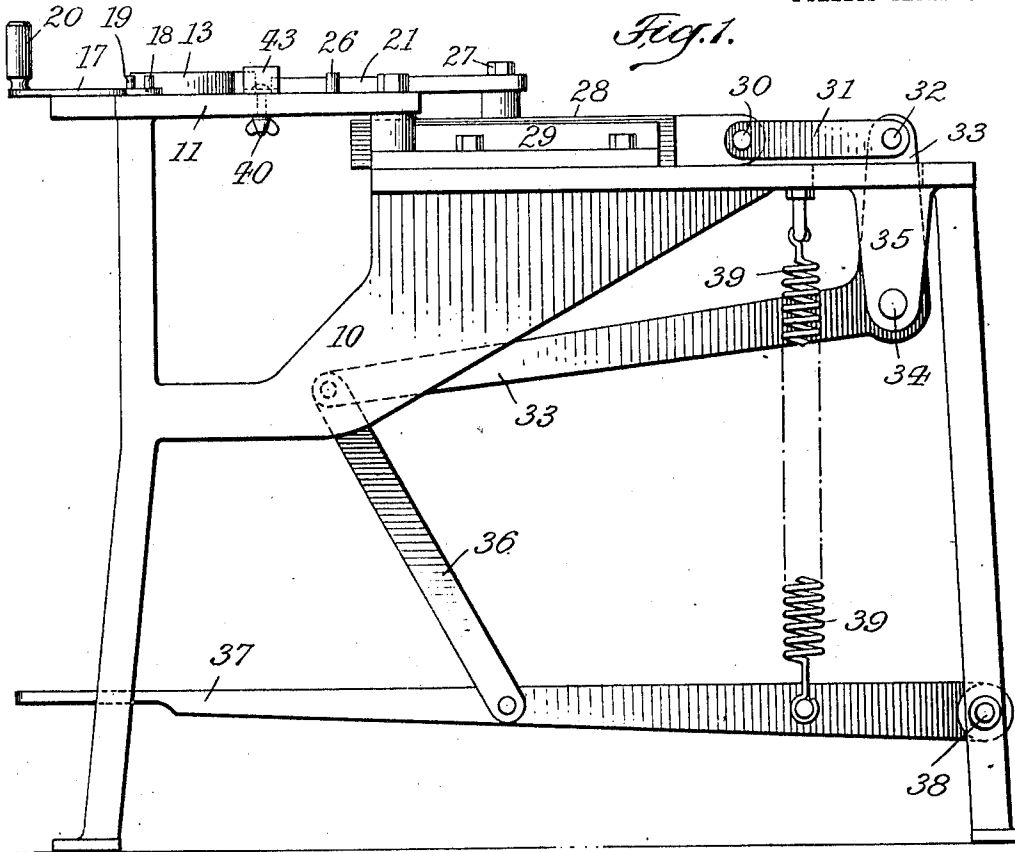


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HANDLE MAKING MACHINE.  
APPLICATION FILED JUNE 29, 1910.

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Patented Sept. 13, 1910.

2 SHEETS—SHEET 1.



Witnesses:  
*Julius H. Smith*  
Daniel Holmgren

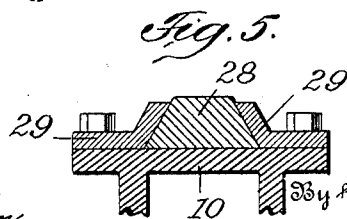
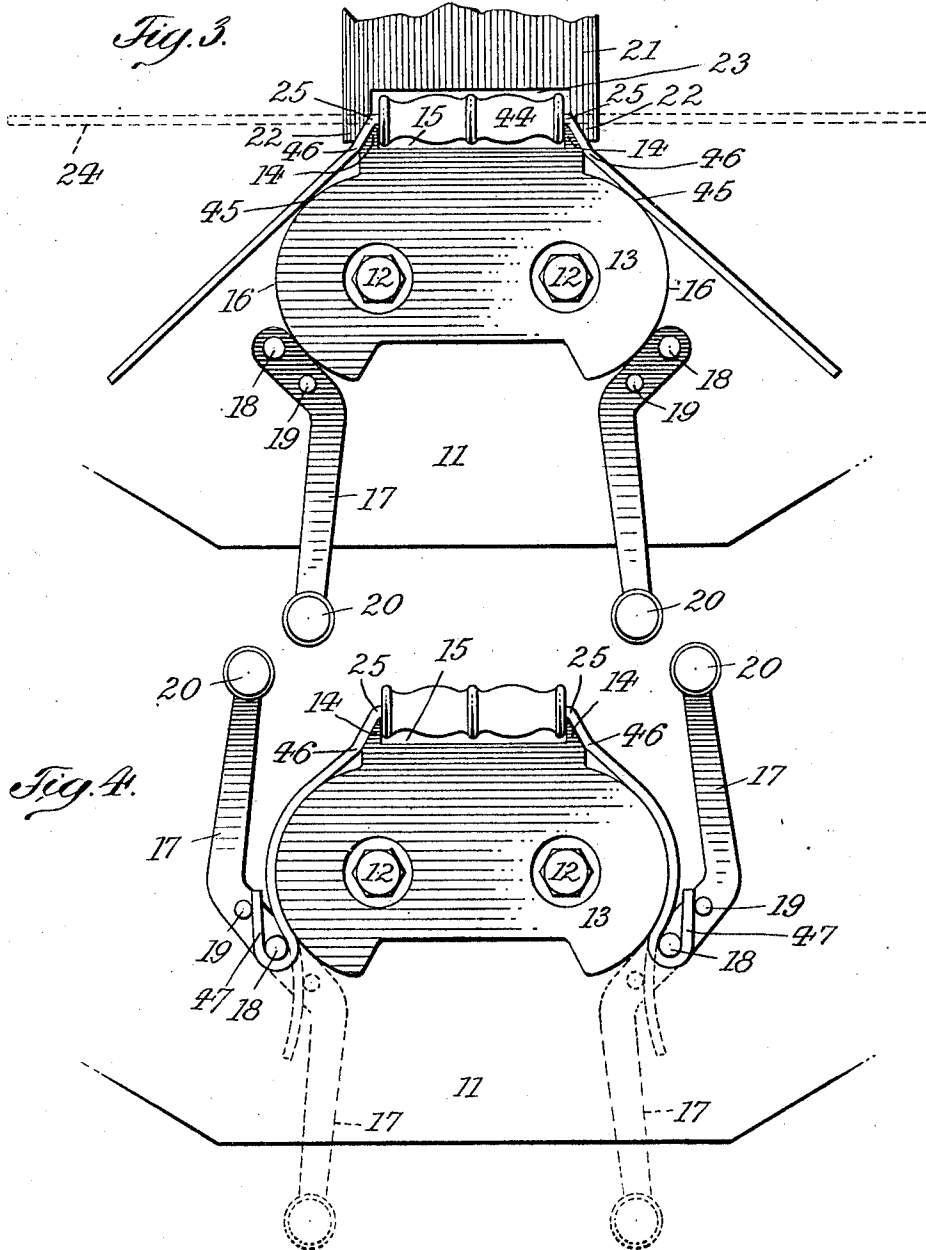
Inventor  
Myer Kamenstein.  
By his Attorneys  
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*Myer Kamenstein*  
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*Priesen & Gump*

# UNITED STATES PATENT OFFICE.

MYER KAMENSTEIN, OF NEW YORK, N. Y.

## HANDLE-MAKING MACHINE.

970,059.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed June 29, 1910. Serial No. 569,421.

*To all whom it may concern:*

Be it known that I, MYER KAMENSTEIN, a citizen of Russia, residing at New York city, county and State of New York, have invented new and useful Improvements in Handle-Making Machines, of which the following is a specification.

This invention relates to a machine of novel construction for bending a wire carrying a grip into the form of a bail, so that a finished handle will be delivered by the machine.

In the accompanying drawing: Figure 1 is a side elevation of my improved handle making machine; Fig. 2 a plan thereof, Figs. 3 and 4 are plans of the die and co-operating parts showing them in consecutive positions, and Fig. 5 is a cross section on line 5-5, Fig. 2.

The machine frame 10 is provided with a top plate 11, to which is bolted at 12 a die 13. From the rear edge of this die extend a pair of beveled fingers or abutments 14 flanking an intervening recess 15. The two sides 16 of the die are of semi-circular or other convex shape and coöperate with a pair of bent levers 17 pivoted to plate 11 at the right and left of the die. The pivots 18 of levers 17, extend some distance above the levers to permit their engagement with the wire to be bent, as will be hereinafter more fully described. In proximity to pivots 18, there extend upwardly from levers 17, pins or abutments 19, while handles 20, carried by the levers, permit them to be swung upon their pivots.

The back of the die is adapted to coöperate with a follower 21 having beveled fingers 22, flanking a front recess 23. The bevel of fingers 22 corresponds to that of fingers 14 while the reach of fingers 22, is such that upon an advance of the follower, they will coact with fingers 14 to bend the intervening length of wire 24 into an obtuse angle as illustrated at 25, Fig. 3. Follower 21 is guided between a pair of anti-friction rollers 26 and is connected at 27 to a reciprocative slide 28 movable between a pair of rails 29. At its rear end, slide 28 is pivoted at 30 to a link 31 which is in turn at 32 pivoted to an elbow lever 33 fulcrumed at 34 to arms 35 constituting part of the machine frame. Lever 33 is by link 36 connected to a treadle 37 pivoted at 38 and normally held in its raised position by a spring 39.

At both sides of die 13 there are adjust-

ably secured to plate 11 by screw bolts 40 a pair of alined gages 41 having slots 42 through which said screws pass. The gages 41 are provided with end flanges 43 serving as stops for the wire 24 to be bent.

In use, the wire 24 carrying grip 44 is so centered by stops 43 that grip 44 will be accommodated by recess 15 (Fig. 2). The treadle 37 is next depressed to advance follower 21 so that its fingers 22 will force the wire sections adjoining grip 44 against fingers 14 and will thus bend them into obtuse angles 25. During this operation the shanks of the wire will impinge at 45 against die 13 to become slightly bent outward as at 46 (Fig. 3). The wire shanks are then manually grasped by the operator, folded against the convex sides 16 of die 13, and slipped between pivots 18 and abutments 19 of levers 17, as illustrated by dotted lines in Fig. 4. Levers 17 are finally swung backward (full lines, Fig. 4) to form end hooks or eyes 47, whereupon the finished handle is removed from the machine.

If the size of the bail is to be changed, die 13 and follower 21 are removed and replaced by those of the proper size. Pivots 18 are withdrawn and introduced into one of a number of apertures 48, formed in plate 11 to the right and left of the die.

I claim:

1. A handle making machine comprising a die having a pair of spaced abutments, a reciprocative follower, and a pair of levers, each having a pair of pins that are adapted to engage the handle wire.

2. A handle making machine comprising a die having a pair of convex sides, and a pair of levers having upwardly extending pivots, and adapted to coöperate with said sides.

3. A handle making machine comprising a die having a pair of convex sides, and a pair of coöperating levers having upwardly extending pivots and pins in proximity to said pivots.

4. A handle making machine comprising a die having a pair of abutments and a pair of convex sides, a follower adapted to coöperate with the abutments, and a pair of levers adapted to coöperate with the convex sides.

5. A handle making machine comprising a recessed die having convex sides and a pair of opposed abutments, a reciprocative follower coöperating with the abutments, and a pair of levers flanking the convex die-sides

and each having a pair of pins that are adapted to engage the handle-wire.

6. A handle making machine comprising a die having a pair of spaced beveled abutments, a reciprocative follower having beveled fingers that are adapted to cooperate with the abutments, means for guiding the follower, a treadle operatively connected to

the follower, a pair of levers flanking the die, and pins on said levers that are adapted to engage the shanks of the handle wire.

MYER KAMENSTEIN.

Witnesses:

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