



# UNITED STATES PATENT OFFICE.

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## EJECTING DEVICE FOR STAMPING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 701,405, dated June 3, 1902.

Application filed February 17, 1902. Serial No. 94,537. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SHIRREFFS, works manager to Maconochie Brothers, Limited, a subject of the King of Great Britain and Ireland, residing at 70 Hyde Vale, Greenwich, London, England, have invented certain new and useful Improvements in Ejecting Devices for Stamping-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art, to which it appertains to make and use the same.

My invention has for its object to provide means by which danger to the operator in removing articles from stamping or like machines is prevented. According to my invention the machine is provided with a pushing or ejecting device which is operated when the stamping or equivalent operating part of the machine leaves the article operated upon, so that the said device automatically ejects the article from between the operative parts of the machine, and the operator has not to put the hand within range of the said operative parts of the machine to remove the articles.

I will describe with reference to the accompanying drawing an arrangement according to my invention, premising that the invention is not limited to the precise arrangement and construction illustrated. The said drawing represents in elevation so much of a pressing-machine as is necessary to illustrate the application of my invention thereto.

A is the upper die of the press, B is the lower die, and C is part of the framework. Supported by the framework is a plate D, with pieces or lugs *d*, in which a spindle E can be turned. The said spindle carries an arm *e*. In the said spindle is formed the inclined or helical groove *e*<sup>2</sup>. The upper operative part of the press has fixed to it a piece F, with a projection at *f*, which engages in the said groove *e*<sup>2</sup>, so that when the upper die of the press descends the arm *e* is moved clear of the space between the operative parts of the press, and when the upper die rises the

said projection *f* acts in the groove *e*<sup>2</sup>, so as to cause the arm *e* to move into the space between the operative parts of the press and eject or move out from the said space the article which has been stamped.

The spindle E and part F may be arranged with any other engaging devices which will partially rotate the spindle, as described, and the spindle E may be operated in both directions positively by the said devices, or it may be operated in one direction by such devices and in the other direction by a spring.

From the foregoing description it will be understood that the invention can be similarly applied to other than stamping-machines.

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

1. In a stamping or like machine, the combination with a reciprocatory die-carrying plunger, of a device for ejecting stamped articles comprising an oscillatory spindle approximately parallel to the line of movement of the plunger, an ejector-arm projecting from the spindle, an actuating-arm projecting from the plunger, and a spindle-oscillating connection between the actuating-arm and spindle.

2. In a stamping or like machine, the combination with a reciprocatory die-carrying plunger, of a device for ejecting stamped articles comprising an oscillatory spindle approximately parallel to the line of movement of the plunger, an ejector-arm projecting from the spindle, an actuating-arm projecting from the plunger, and a spindle-oscillating connection between the actuating-arm and spindle comprising a projection on one part engaging a cam-groove in the other.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN SHIRREFFS.

Witnesses:

WILLIAM GERALD REYNOLDS,  
JOHN EDWARD NEWTON.