(No Model.) 2 Sheets—Sheet 1.

H. K. JONES.

ATTACHMENT FOR MACHINES FOR ROLLING SCREW THREADS.

No. 492,468. Patented Feb. 28, 1893.

Fig. 1.

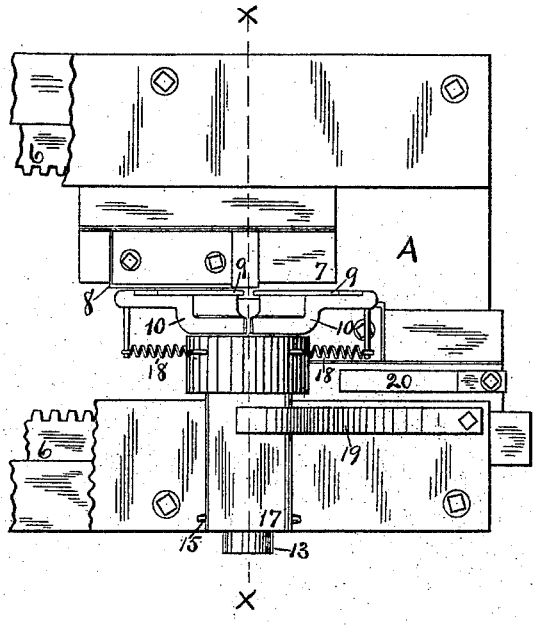


Fig. 2.

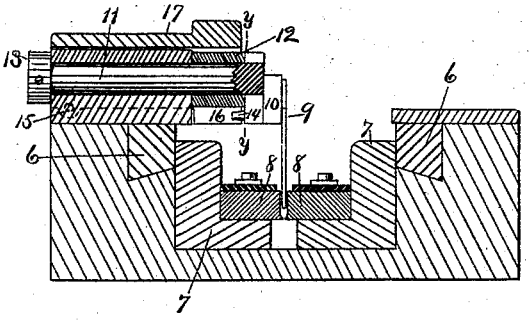
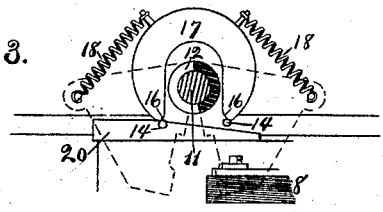


Fig. 3.



Witnesses.
Edward W. Rush
C. Darwin Loomis Jr

Inventor:
Horace K. Jones
By James Shepard
Atty.

(No Model.)

H. K. JONES.

2 Sheets—Sheet 2.

ATTACHMENT FOR MACHINES FOR ROLLING SCREW THREADS.

No. 492,468. Patented Feb. 28, 1893.

Fig. 4.

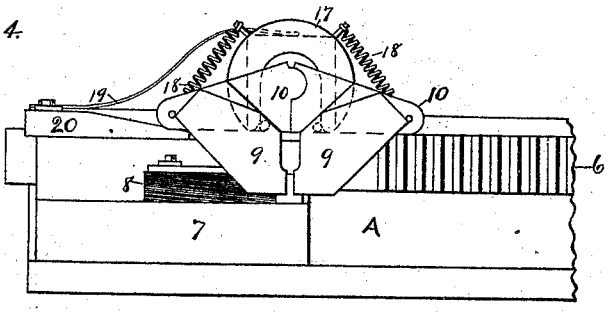
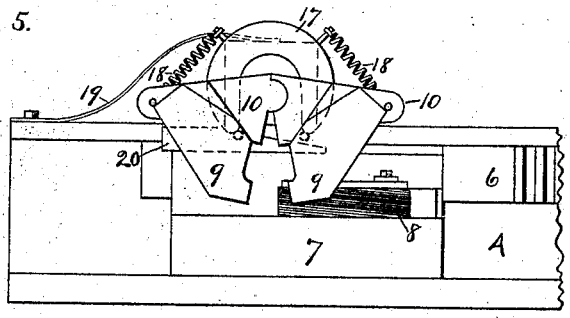


Fig. 5.



Witnesses.
Edward W. Bush,
C. Darwin Loomis

Inventor.
Horace K. Jones,
By James Shepard.
Atty.

UNITED STATES PATENT OFFICE.

HORACE K. JONES, OF HARTFORD, ASSIGNOR TO THE RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT.

ATTACHMENT FOR MACHINES FOR ROLLING SCREW-THREADS.

SPECIFICATION forming part of Letters Patent No. 492,468, dated February 28, 1893.

Application filed October 22, 1892. Serial No. 449,640. (No model.)

To all whom it may concern:

Be it known that I, HORACE K. JONES, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Blank-Holding Attachments for Machines for Rolling Screw-Threads, of which the following is a specification.

My invention relates to improvements in blank holding attachments in machines for rolling screw threads; and the objects of my improvement are simplicity of construction and general efficiency.

In the accompanying drawings, Figure 1 is a plan view of my attachment with so much of a machine as is necessary to show its connection therewith. Fig. 2 is a vertical section thereof on the line *x x* of Fig. 1 with one part in side elevation. Fig. 3 is a sectional view of a portion of my attachments on the line *y y* of Fig. 2 together with a profile of some of the parts in broken lines that come in front of the plane of said section. Fig. 4 is a face view of my blank holder and adjacent parts in a position to receive the blank, and Fig. 5 is a like view of the same when in a position to discharge the blank.

A designates the frame of the machine which is provided with reciprocating racks 6 which may be simultaneously reciprocated past each other by any desired mechanism. Mounted on these racks are die carriages 7 and dies 8 of any ordinary construction.

My attachment may be applied to any ordinary thread rolling machine which has reciprocating dies. In machines of this class the blank is supported by means of holders 9 which are in the form of blades extending between the dies and supporting the blank on opposite sides. These blank holders are mounted on oscillating wings 10, and my improvement relates to the manner of mounting and operating these wings and blank holders. Mounted in a suitable block in a portion of the frame, is a shaft 11 having one of the wings 10 rigid therewith, while the other wing 10 is provided with a sleeve like hub 12 mounted on said shaft so as to turn thereon. This shaft 11 is held in its bearings by the collar 13 at one end, and by the wings at the other end. Each of the wings is provided with a shoulder 14, which may be made in any manner desired, but as shown it is formed by a pin firmly inserted in the wing. Covering the block in which the shaft 11 is borne, is a pivoted swinging block whose axis is at 15, Figs. 1 and 2. This block is grooved or chambered on its underside so as to fit the sides of the bearing block of the shaft 11 for a portion of its length, while the end adjacent to the wings fits over the sleeve like hub 12 so that the lower corners 16 of said block may serve as cams. These corners are so arranged with reference to the shoulders 14 that when the swinging block 17 is brought down to its lowermost position, its side walls engage the shoulders 14 and hold the wings in their closed position as shown in Figs. 1 and 4. The wings are each provided with springs 18 which are secured by one end to the outer ends of the wings and by their opposite ends to the swinging block 17. In addition to gravity, the swinging block 17 is also forced down by means of the spring 19. On one of the die carriages, I fix a wedge 20.

Blanks may be fed to the holders in any ordinary manner. About the time that the dies 8 have finished their working stroke, the wedge 20 on the carriage is brought underneath the free end of the swinging block 17 so as to elevate said block and draw the corners 16 partly above the pins 14 of the wings, when the springs 18 upon thus freeing the pins, will open the wings and blank holders as shown in Figs. 3 and 5. Upon the return stroke of the rack, the wedge 20 is withdrawn from the underside of the swinging block, when the weight of the block, assisted by the spring 19, will force its free end downwardly again and the corners 16 acting like cams on the shoulders 14, will force the wings and blank holders together ready to receive and hold another blank until the parts have reciprocated so as to again bring the wedge 20 underneath the swinging block to lift it.

I claim as my invention—

1. The combination of the wings 10 10 carrying holding blades, the shoulders 14 mounted on said wings, the swinging blocks 17 having the lower part of its free ends adapted to engage said shoulders for closing and holding said wings, the springs 18 for opening said

wings when released and the wedge 20 mounted on one of the reciprocating carriages for raising said swinging block and then releasing it, substantially as described and for the purpose specified.

2. The combination of the wings 10 10 carrying holding blades, the shoulder 14 on said wings, the swinging block 17 having the lower part of its free end adapted to engage said shoulders for closing and holding said wings, devices for opening said wings when said shoulders are released, and the wedge 20 mounted on a reciprocating carriage for lifting and releasing said swinging block, substantially as described and for the purpose specified.

HORACE K. JONES.

Witnesses:
R. A. MOVE, Jr.,
EDWARD W. BUSH.