

J. A. WELLS.
Machines for Heading Rivets.

No. 143,549.

Patented Oct. 7, 1873.

Fig. 1.

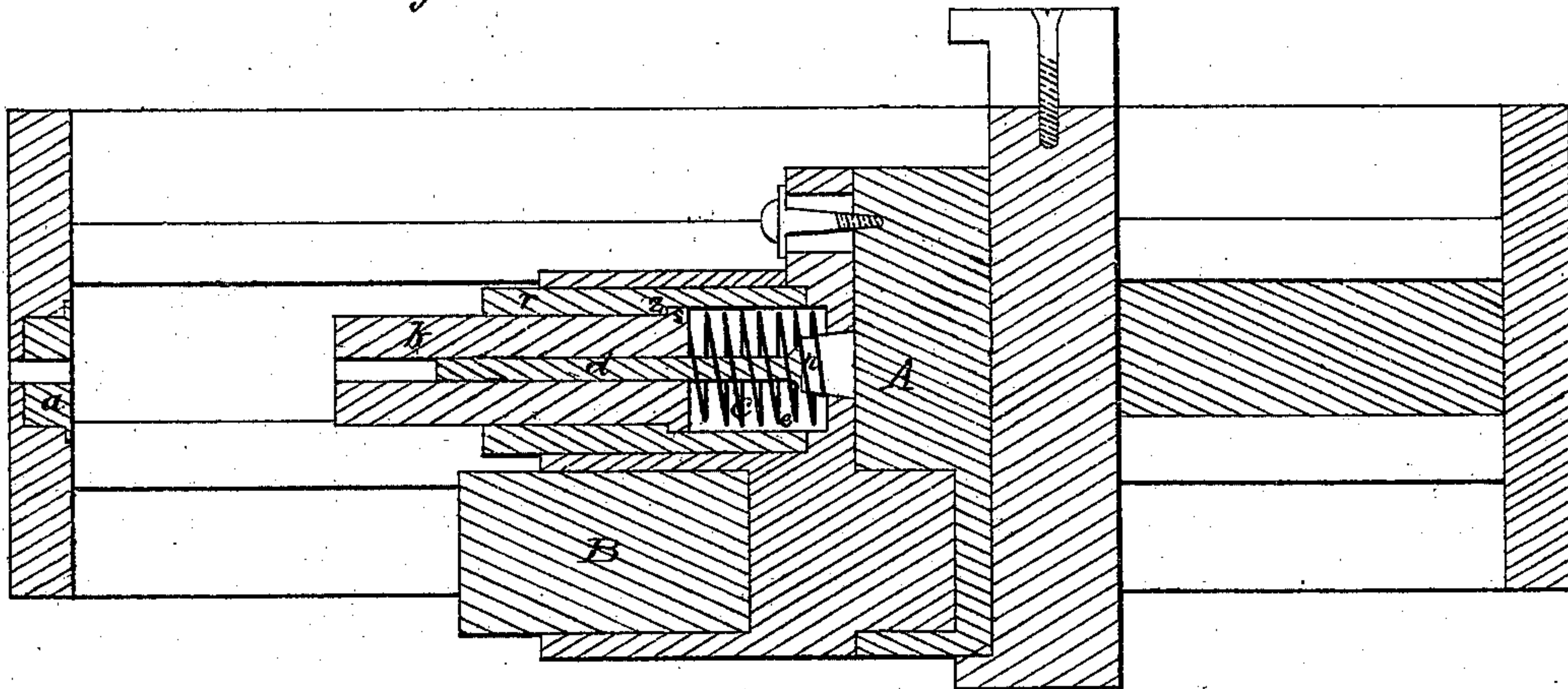
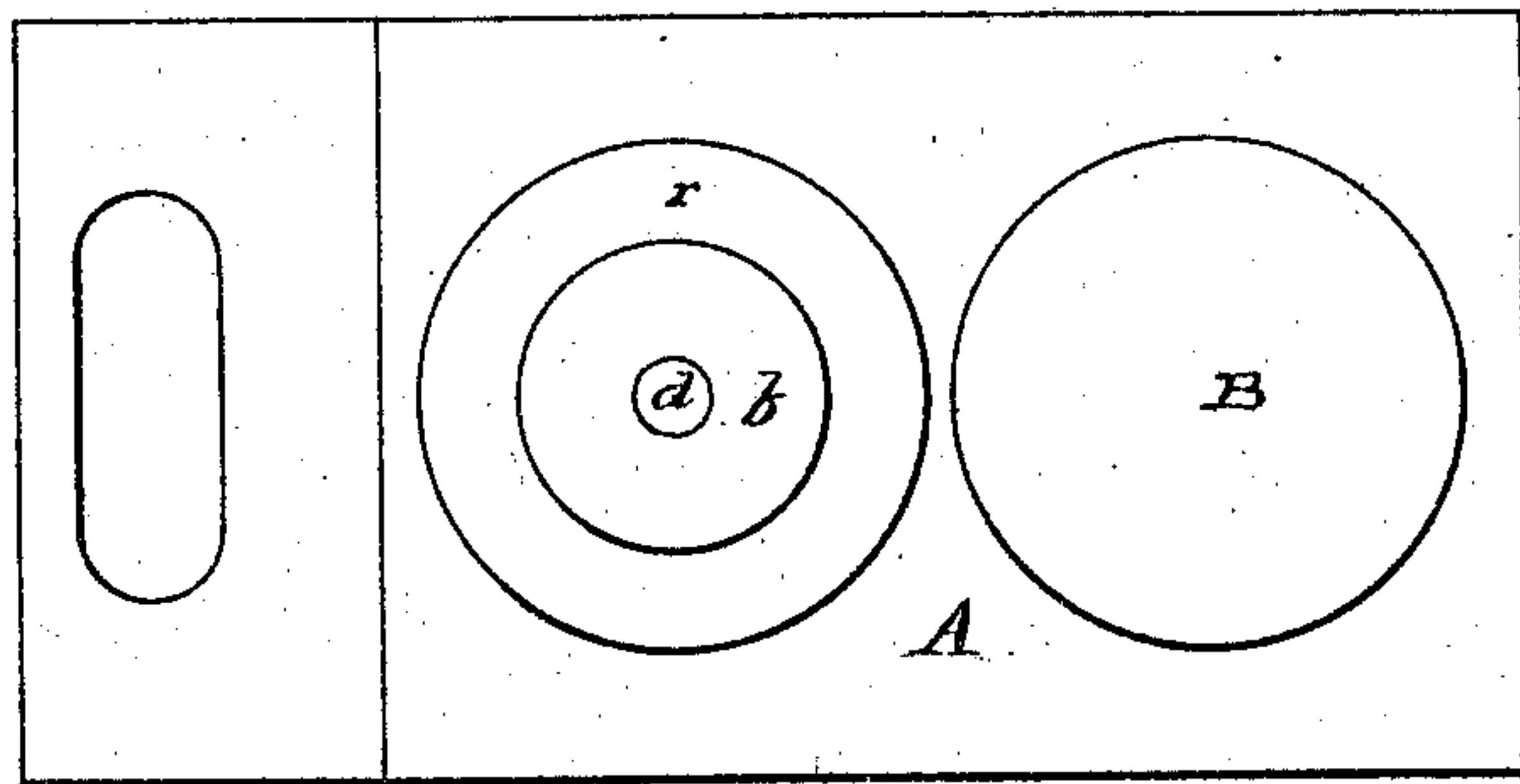


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOSEPH A. WELLS, OF WATERBURY, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR HEADING RIVETS.

Specification forming part of Letters Patent No. **143,549**, dated October 7, 1873; application filed April 26, 1873.

To all whom it may concern:

Be it known that I, JOSEPH A. WELLS, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and valuable Improvement in Device for Rivet-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a vertical longitudinal section of my device for rivet-machine. Fig. 2 is a detail view of same.

This invention has relation to an improvement in rivet-machines; and it consists in the construction and novel arrangement, in connection with the header-block, of a drive-pin, having a fixed position with reference to the header-block, and a sliding sleeve, surrounding the drive-pin, and kept up to its work by means of a spring or equivalent device. The object of this invention is to keep that portion of the rod or wire of which the head is formed accurately centered while the head is being upset. A larger amount of metal may thus be spread in the formation of the head, in a uniform manner. Rivets with large heads, compared with the size of their shanks, for which there is a great demand, may be in this manner easily and economically manufactured.

In the accompanying drawings, the letter A designates the header-block; to which the wire may be fed, in the manner customary in any of the heading-machines in common use, through a die, *a*, which is designed to hold the shank of the rivet. That portion of the wire of which the head is formed projects from the die *a*, and is received into the sleeve *b*, which is seated in a recess in the header-block. In rear of this sleeve is arranged a spring, *c*, which serves to keep the sleeve up to its work. Within the

sleeve is the pin *d*, which may be rigidly secured to the bottom of the recess *e*. It is preferable, however, to provide this pin with a bearing-end, *n*, of small diameter, and to provide the recess with an opening through its bottom, to be closed by means of a plug having a screw-thread, or other secure stop. Thus pins of different lengths, corresponding to the length of wire to be upset in forming the head desired, may be introduced into the sleeve *b*. The sleeve may be provided with a collar-stop, *s*, and an outer case, *r*, having an internal shoulder, *z*, for engagement with said stop.

The head of the rivet may be entirely formed by the single stroke of the drive-pin *d*; but, to secure a better finish, it is usually preferable to employ the devices above described, in connection with a finishing-header, B, attached to the header-block, the ordinary mechanism of the double-stroke heading-machines being employed to give the header-block the proper motion.

By means of the spring-sleeve the wire is kept centered properly as the header moves up to the die *a*, the pin *d* driving or pressing the wire centrally and uniformly against the die *a* in the operation of upsetting the head.

What I claim as new, and desire to secure by Letters Patent, is—

In a heading-machine, the combination of the movable header-block A, sliding sleeve *b*, encircling the drive-pin *d* and having a collar-stop, *s*, the outer case *r*, having a corresponding interior shoulder, *z*, and spring *c*, all operating in the manner as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH A. WELLS.

Witnesses:

R. B. GWILLIM,
ANSON TOLLES.