

J. J. Crooke,

Hinge.

N^o 41,201. Patented Jan. 12, 1864.

Fig. 1.

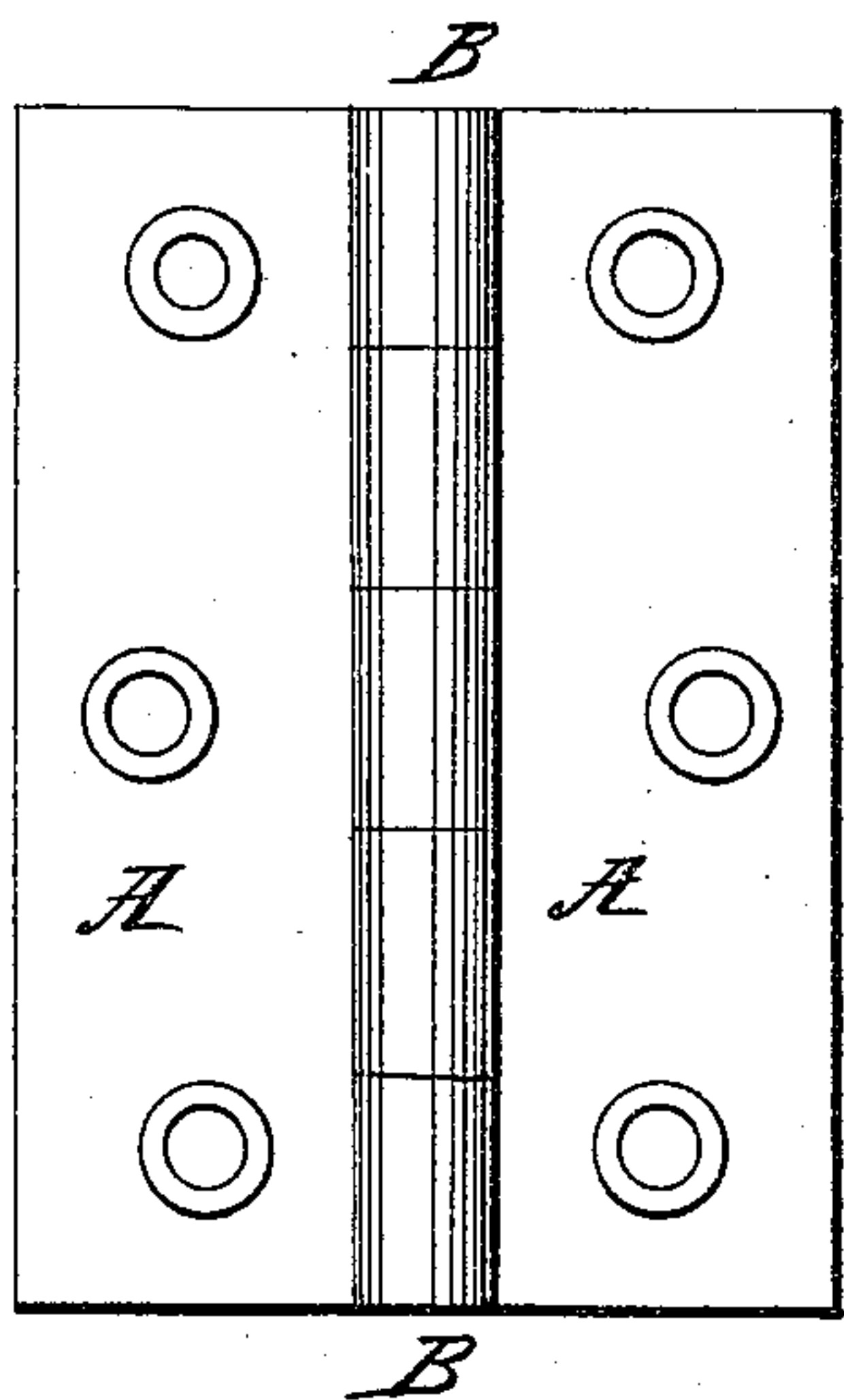


Fig. 2.



Fig. 3.

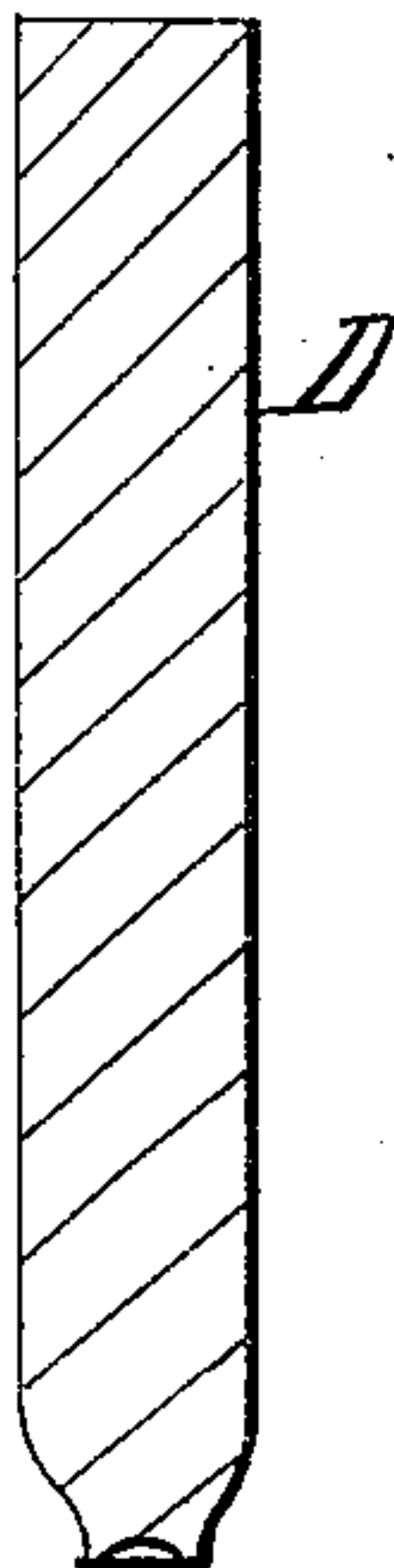
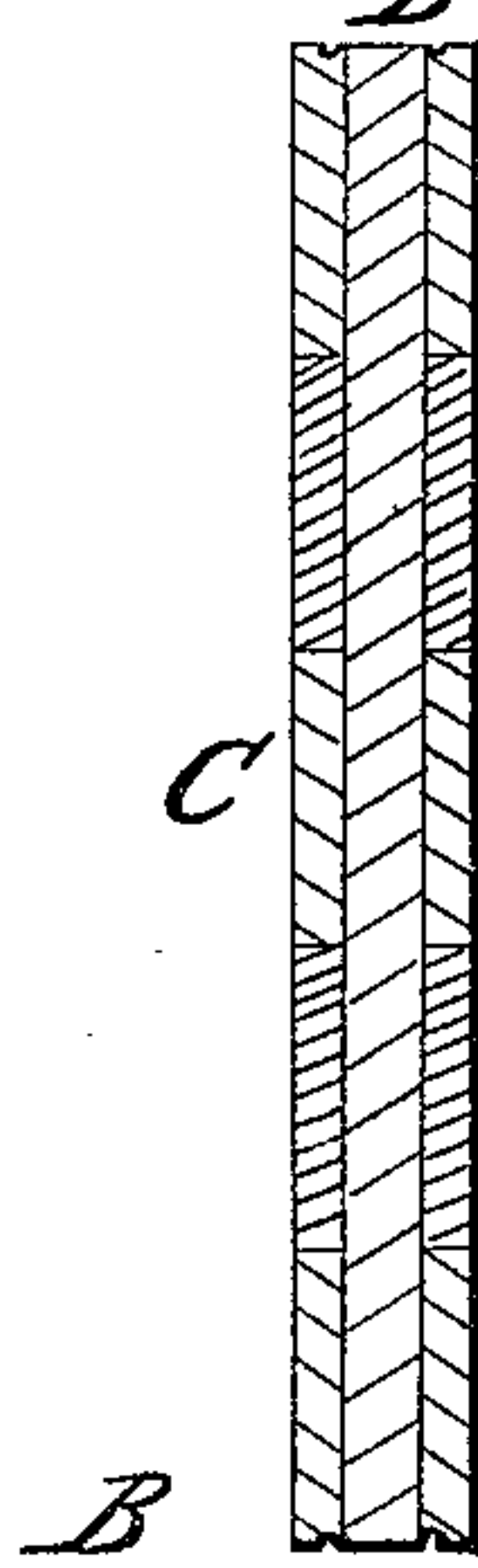


Fig. 4.



Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN J. CROOKE, OF NEW YORK, N. Y.

IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. 41,201, dated January 12, 1864.

To all whom it may concern:

Be it known that I, JOHN J. CROOKE, of the city, county, and State of New York, have invented certain new and useful Improvements in Butt-Hinges; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention consists in countersinking or depressing the ends of the wings of the hinge around the axis by swaging or compression, thus causing them to fit the axis more snugly, and then riveting the end of the pintle or axis in the countersink thus formed, so as to be flush with or not to extend beyond the ends of the hinge, as hereinafter more fully described.

In the drawings, Figure 1 is a side elevation showing the hinge as finished. Fig. 2 is an end view showing the end of the axis as riveted or headed down in place. Fig. 3 is a vertical section of one of the punches used in riveting or heading the ends of the axis. Fig. 4 is a side elevation of the punch. Fig. 5 is a vertical longitudinal section of the hinge, showing both ends of the axis as riveted or headed inside of the ends of the hinge.

A A are the sides of the hinge. B B are the end portions of the joints. C is the axis of the hinge. D is one of the punches with which the ends of the axis C is riveted. It will be observed in Fig. 3 that the cavity of the punch D is larger at the mouth than it is at the inner end of it, and consequently it strikes the end of the part B of the joint and forms a shoulder or depression in each of the parts B B, and as the punch D continues to advance it rivets or heads the end of the axis C into the depression made before the punch touched the axis, so that when the latter is riveted or headed it is wholly inside of the ends of the parts B B, as seen in Figs. 1 and 5. The axis C is riveted or headed by placing the hinge in a V or other guide of a drop-

press, the lower part B and lower end of the axis C resting upon a punch similar to the punch D, which is set into a block, and when the punch D descends it strikes the upper part B of the joint, forcing the lower part B down firmly upon the lower punch, forming the shoulder or depression and riveting or heading the ends of the axis C. The V or guide of the drop-press is so arranged that when the hinge is placed in it the former brings the latter immediately between the punches. Care must be taken by the manager of the press in riveting or heading the axis C not to strike too heavy a blow, as it would drive the parts of the joints together so that the parts would bind, and consequently the hinge could not be used advantageously, about a forty-pound blow being as heavy a blow as is necessary to rivet or head the ends of the axis C.

A careful consideration of the obvious and legitimate effect of this mode of construction will show that it is superior to the modes previously practiced, for the reason that it not only rivets the axis within the length of the hinge proper, leaving no projection of the axis beyond the wings, but also compresses the metal around and against the axis in the end portion of the joint, thereby preventing the axis from turning in that wing or half of the hinge, and thus rendering its permanency in position entirely secure.

Having thus fully described my said invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The hinge above described, constructed by driving in a portion of the ends of the parts B B around the axis, and riveting or heading the ends of the axis C within the outer ends of the parts B B of the joint, as hereinbefore set forth.

JOHN J. CROOKE.

Witnesses:

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