

A. F. TEMPLE.
Boring-Tool.

No. 222,101.

Patented Nov. 25, 1879.

Fig. 1.

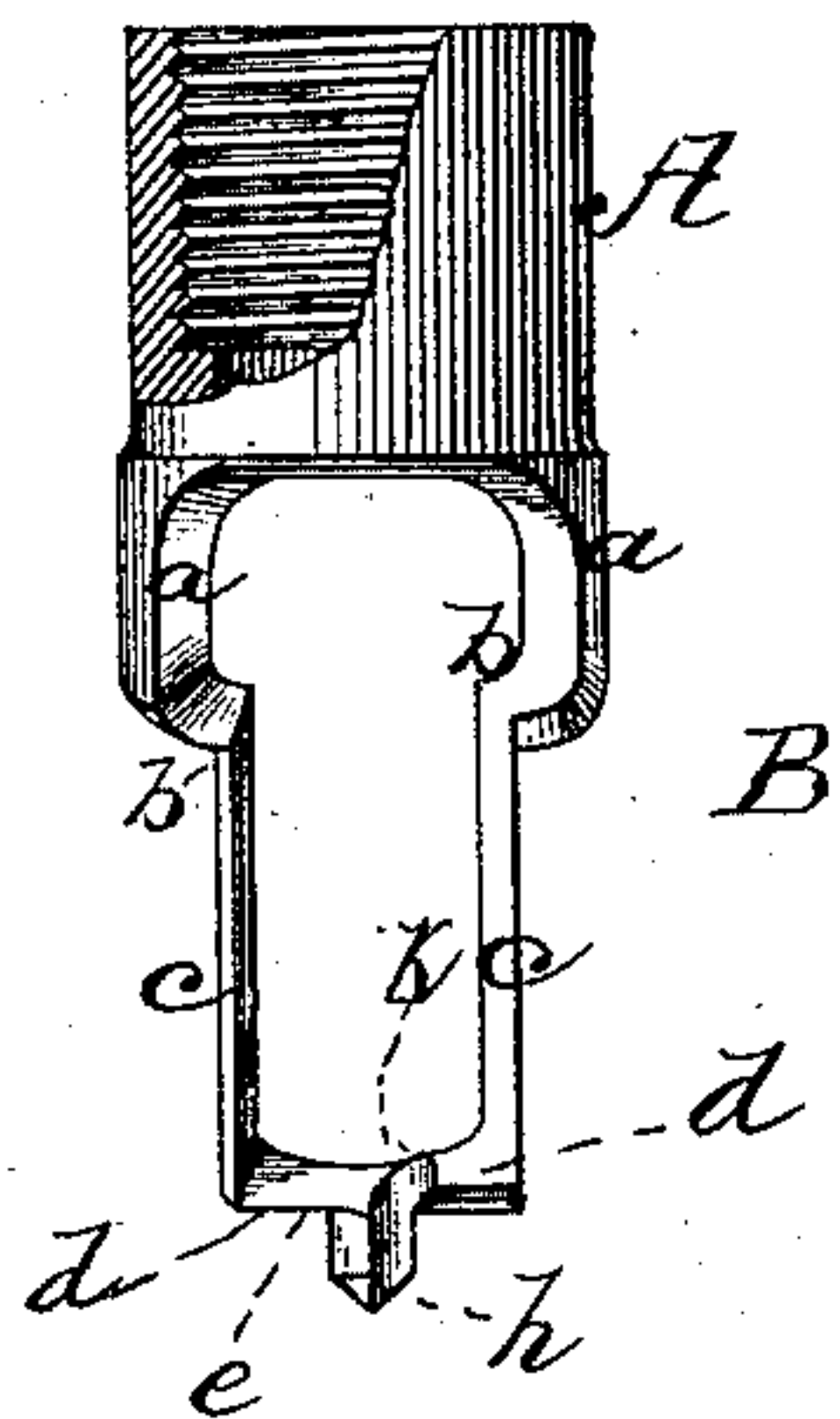


Fig. 2.

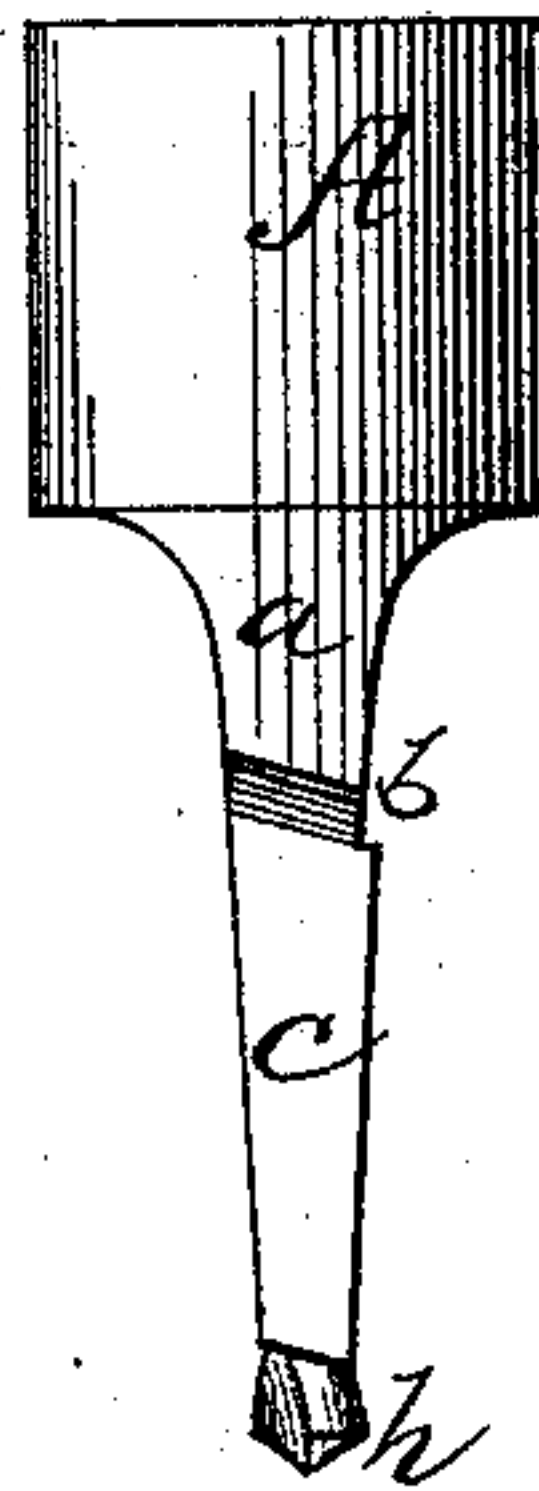


Fig. 3.

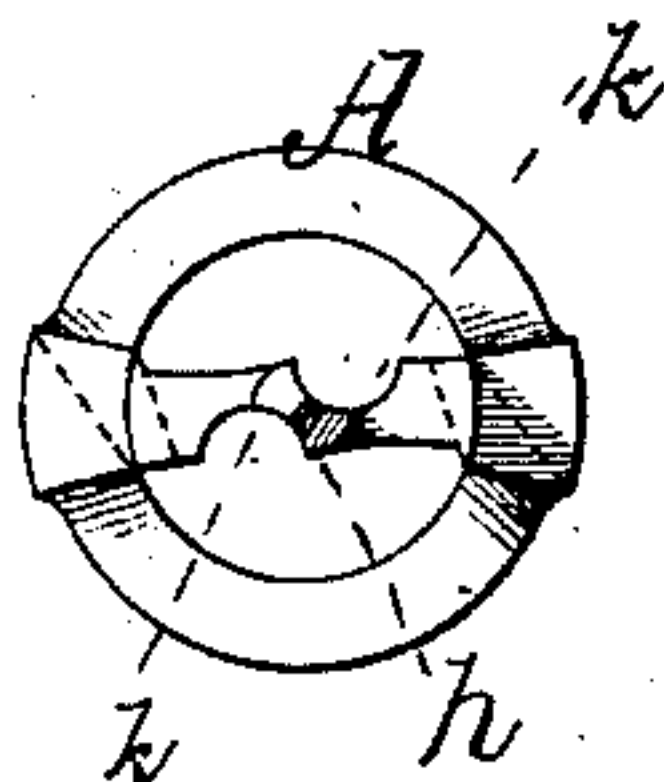
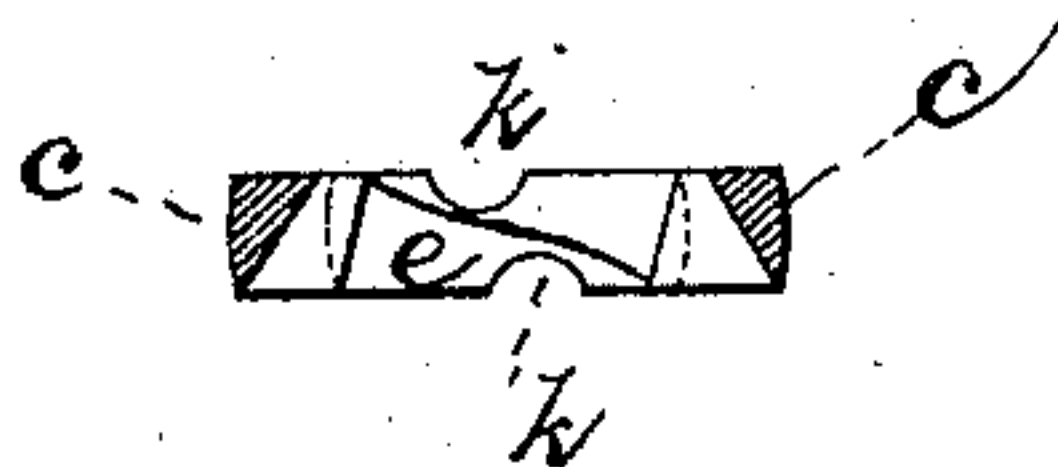


Fig. 4.



WITNESSES

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IMPROVEMENT IN BORING-TOOLS.

Specification forming part of Letters Patent No. **222,101**, dated November 25, 1879; application filed April 21, 1879.

To all whom it may concern:

Be it known that I, ANSEL F. TEMPLE, of Montague, in the county of Muskegon and State of Michigan, have invented a new and valuable Improvement in Boring-Tools; 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 representation of a perspective view of my improved boring-tool. Fig. 2 is a side view thereof. Fig. 3 is a bottom view of the same, and Fig. 4, a transverse section thereof.

This invention has relation to boring-bits for spring curtain-rollers; and it consists in the construction and novel arrangement upon a tubular shank of a double gage-loop cutter having a central entering-point, cutting-shoulders, and parallel inwardly-cutting branches diametrically opposite each other, terminating in a second set of cutting-shoulders connecting with parallel inwardly-beveled base-cutters, which form extensions of the tubular shank, all as hereinafter shown and described.

The object of this invention is to cut a neat bore, and at the same time to form at the end thereof a recess or chamber of less diameter and certain depth, as required in making hollow spring curtain-rollers and other like articles.

In the accompanying drawings, the letter A designates the tubular portion or shank of the bit, provided with a connecting-thread to engage with the screw end of the hollow shaft of a boring-machine. Extending from this shank is the loop-form cutting portion B, formed as follows: From diametrically-opposite sides of this tubular shank extend the base-cutters *a*, which are beveled from their cutting-edges inward to the bore of the shank. The exterior surfaces of these base-cutters are slightly raised from the cylindrical surface of the shank, so that the latter will follow freely in the aperture cut thereby. These base-cutters terminate in oblique lateral cutting-shoulders *b*, extending inward and beveled downward from their cutting-edges and forming, by their inner ends, the bases and points of support of

the extension or chamber-cutters *c*, which extend therefrom in the line of the bore parallel with each other beyond the base-cutters to the distance required, according to the depth of the chamber to be cut. These extension-cutters are nearer together than the base-cutters by the depth of the connecting-shoulders, and the chamber cut thereby is of a certain smaller diameter than that of the bore cut by the main or base cutters and of certain depth and position, so that there is no variation, as is apt to be the case when independent bits are used to cut first the bore and then the chamber at the end thereof. These chamber-cutters are beveled inward from their cutting-edges and terminate in the downwardly-beveled cutting-shoulders *d* of the transverse bar *e*, from the center of which projects the entering-point *h*, which is obliquely arranged on the bar and concave on each side, the bar being notched at the base of the point, as shown at *k*.

The entire cutting portion is in loop form, as shown, and is designed, as stated, to cut a bore, and at the end thereof a chamber of certain less diameter, of certain depth and in certain position, so that there will be no variation in large quantities of work, as is required in the construction of hollow spring curtain-rollers and other articles. The inwardly-beveled cutters throw the chips and borings toward the bore of the shank, so that they will pass into the shaft of the boring-machine and be removed in the usual manner.

As there may be some variation in the kind of entering-point employed, I do not desire to be confined strictly to the construction shown.

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

The double-gage boring-bit having a tubular shank, A, and loop-form cutting portion B, having lateral cutting-shoulders *b*, between the wide-gage bore cutters *a*, and the narrow gage-chamber *c*, and a central entering-point, *h*, substantially as specified.

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

ANSEL F. TEMPLE.

Witnesses:

A. Z. MASON,
N. L. SEELYE.