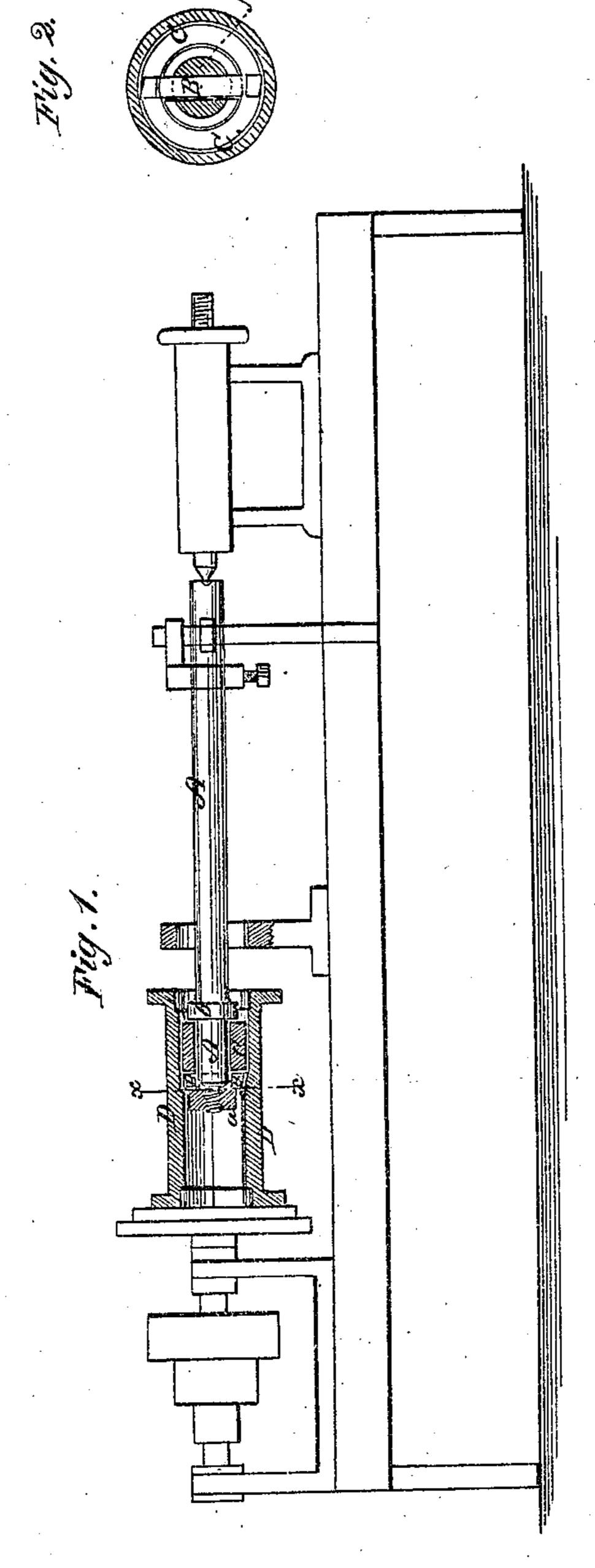
## Esting Tool.

Nº292.395.

Patented Sul. 6.1869.



Witnesses:

Hattig Starting.

Inventor.

G.C. Strong

pr. Munn The

Attorneys.

## Anited States Patent Office.

## CHARLES CARROL STRONG, OF DEFIANCE, OHIO.

Letters Patent No. 92,395, dated July 6, 1869.

## IMPROVED BORING-TOOL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, Charles Carrol Strong, of Defiance, in the county of Defiance, and State of Ohio, have invented a new and improved Boring-Tool; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side view, partly in section,

of my improved boring-tool.

Figure 2 is a transverse section of the same, taken on the line x x, fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved boring-tool, which is to be applied to lathes of all descriptions, and which is so arranged that it will be guided and held in the proper manner.

The invention consists in arranging a loose collar on the tool, said collar turning freely on it, so that it may be supported in a suitable stand, or in the article

bored, as may be desired.

The tool has thereby a convenient support at or near its working-end, and will be more apt to work steady and true than it would without the guide-collar.

A, in the drawing, represents a shank of the tool. It is made of suitable length and form, and to be clamped in the lathe in suitable manner.

B is the cutter attached to the tool. It is represented as fitted through the slotted or perforated end of the shank A, and clamped by a nut, a, as in fig. 1. The cutter may, however, be arranged in other suitable manner, or two or more cutters may be arranged on the same tool.

Between the cutter B and a shoulder, b, that is

formed on the shank A, or between two such shoulders, is arranged, on the shank, a loose sleeve, C, which can freely turn on the shank, but not slide on the same.

This sleeve is supported in a stand of the lathe-

frame, or in the article, D, to be bored.

I prefer to have it in the latter position, as the sleeve can then turn with the article on the stationary shank. Much friction is by this arrangement overcome.

If the tool is turned in the stationary article, the sleeve is held in the stand, and will then allow easier motion to the tool. In all cases, the sleeve will form

an anti-friction bearing.

I am aware of the patent granted to Lafayette Stevens, December 15, 1857, for an improved boringtool, in which a loose independent collar is placed directly upon the spiral portions of an auger for woodboring. This collar is provided with a series of longitudinal knife-edges upon its periphery, which enter the wood being bored and prevent said collar from turning. Such a collar could not be employed in boring metal, because the knife-edges would prevent it from entering the metal, to support the end of the boring-tool. I therefore claim nothing shown in said patent as my invention.

Having thus described my invention,

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

The loose collar C, having a smooth periphery, when applied to the boring-tool A, between the cutter B and shoulder b, as herein described, for the purpose specified.

CHARLES CARROL STRONG.

Witnesses:

PETER KETTINRING, JOHN J. MYERS.