

L.F. Goodyear,

Turning Metal,

No 23,364,

Patented Mar. 29, 1859.

Fig. 2.

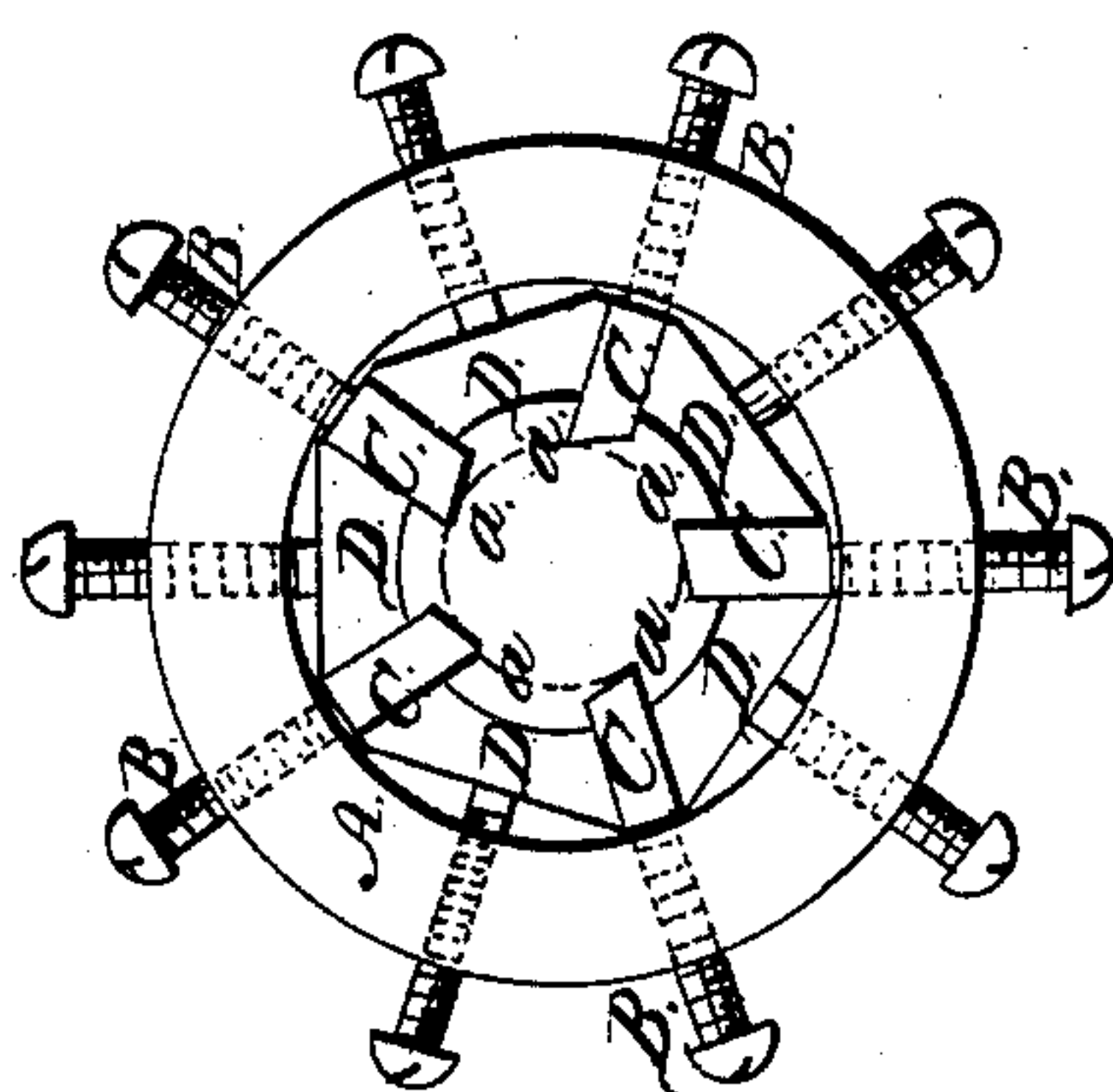
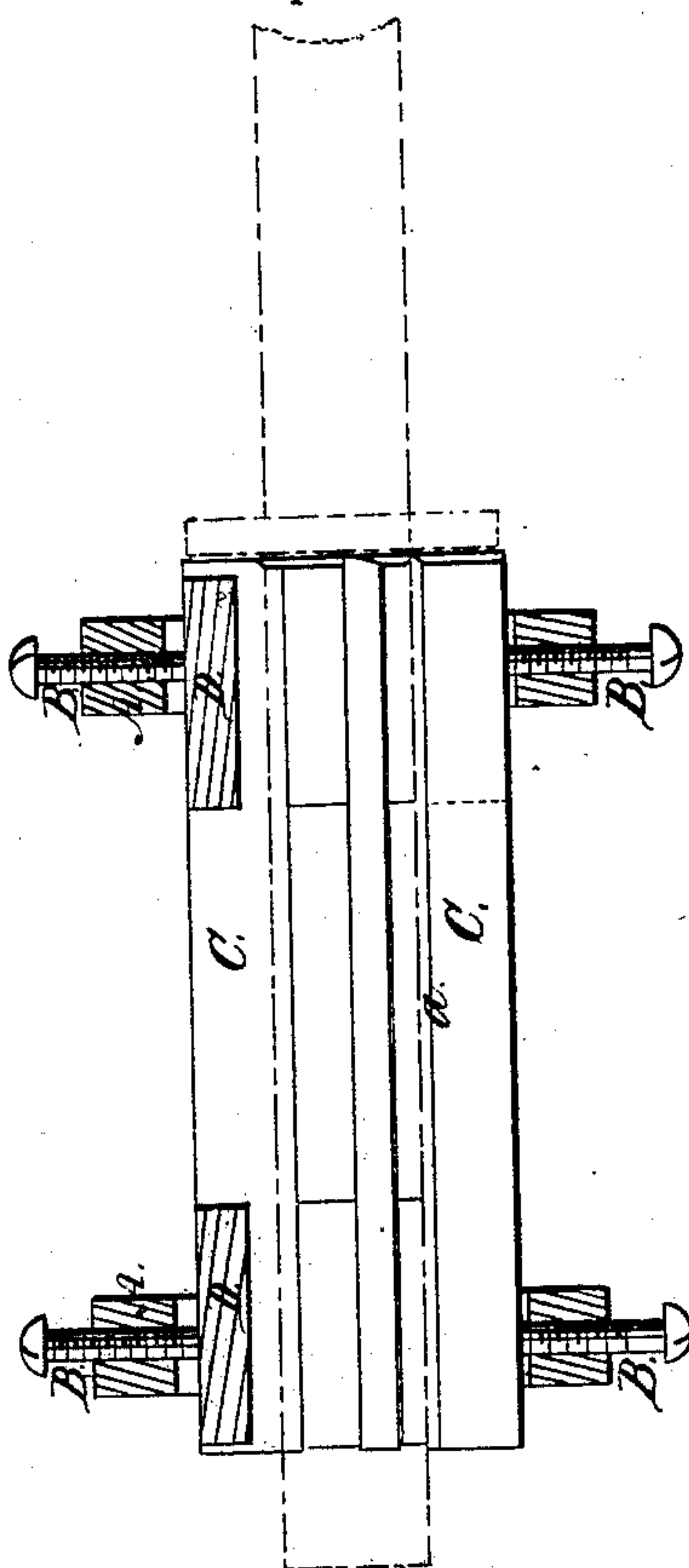


Fig. 1.



Witnesses:

James A. Elliot

Eruman W. W. W.

Inventor:

L. F. Goodyear

UNITED STATES PATENT OFFICE.

L. F. GOODYEAR, OF NEW HAVEN, CONNECTICUT.

IMPROVED TOOL FOR CUTTING METAL.

Specification forming part of Letters Patent No. 23,364, dated March 29, 1859.

To all whom it may concern:

Be it known that I, L. F. GOODYEAR, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and Improved Tool for Turning or Cutting Metal in Cylindrical or Taper Form; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical and central section of my invention. Fig. 2 is an end view of same.

Similar letters of reference indicate corresponding parts in the two figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A represent two metal rings or bands, through which a series of screws, B, pass radially; and C represents knives or cutters, which are formed of rectangular steel bars placed longitudinally within the bands A, and having their inner surfaces beveled, so as to form cutting-edges *a*, as shown clearly in Fig. 2.

Between the knives or cutters C, near each end, wedges D are placed, the sides of the wedges being beveled to correspond with or conform to the radial portion of the knives or cutters. This will be understood by referring to Fig. 2.

The rings or bands A encompass the knives or cutters near their ends, and at points in the same planes with the wedges, as shown clearly in Fig. 1, and the inner ends of the screws B bear on the wedges and knives, retaining them in proper position. The wedges D are of metal and may be made of any suitable length.

The knives or cutters C are adjusted within the rings or bands by regulating the screws B, and it will be seen that the knives or cutters

may be adjusted perfectly horizontal or in oblique positions, the wedges D retaining the cutters at equal distances apart at whatever distance they may be from the inner peripheries of the rings or bands. In order, therefore, to adjust the cutters for taper-work the screws of one ring or band that bear on the cutters are screwed down or inward, the wedges between remaining stationary, but if necessary being slightly relaxed, in order to permit of the free adjustment of the cutters. When the work is to be cut or turned of cylindrical form, the cutters are secured in a horizontal position, the cutters at each end being at equal distances from the inner peripheries of the rings or bands.

This tool may be rotated and the work (shown in red) secured perfectly stationary, or the tool may be held stationary and the work rotated, the work being passed through the tool, or the tool over the work. The tool will prove of great service in cases where work cannot readily be applied to a lathe, and in those cases where lathes are not generally employed—as in blacksmiths' shops and the like. The implement may be constructed at a small cost, and the cutters may be kept in perfect working order with the greatest facility, as they may be readily detached and ground.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement and combination of the adjustable wedges D, cutters C, and ring A, substantially as and for the purpose herein shown and described.

L. F. GOODYEAR.

Witnesses:

JAMES A. ELLIOT,
TRUMAN WHEELER.