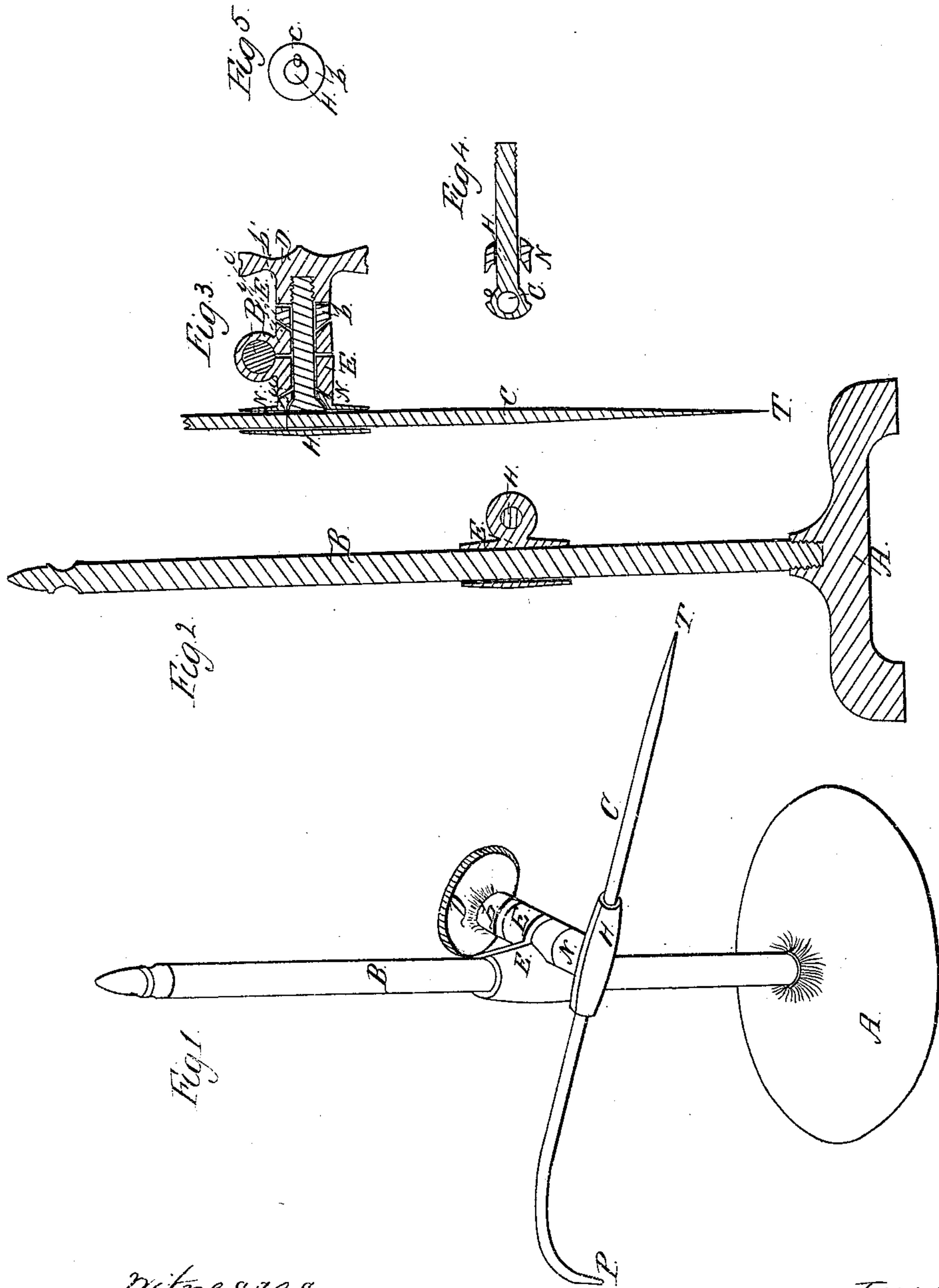


W. F. Cornell.

Turning Lathe.

N^o 81,144.

Patented Aug. 18, 1868.



Witnesses
John F. Chubb
G. F. Partridge

Inventor
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United States Patent Office.

WILLIAM F. CORNELL, OF ADRIAN, MICHIGAN.

Letters Patent No. 81,144, dated August 18, 1868.

IMPROVED SURFACE-GAUGE.

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, WILLIAM F. CORNELL, of the city of Adrian, in the county of Lenawee, and State of Michigan, have invented a new and useful Improvement in Surface-Gauges; and I do hereby declare the following to be a full, clear, and exact description of the same, which will enable others skilled in the art to make and use my invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, like letters referring to like parts.

My invention consists in a surface-gauge for machinists; so constructed that by the use of one adjustable screw the surface and scribing-point are held in any position or elevation desired.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawings—

Figure 1 represents a perspective view of a surface-gauge embodying my invention.

Figure 2 represents a sectional view of my improved gauge, passing through the centre of the spindle B, and parallel with the pointer C.

Figure 3 represents a horizontal section, passing through the centre of the adjustable screw D, and centre of the pointer C placed in a horizontal position.

Figure 4 represents a T-headed arbor, at right angles with the centre of the pointer C.

Figure 5 represents a transverse section of this arbor, together with a conical-shaped washer, *b*.

A represents the base.

B represents the spindle.

E represents a cylindrical clasp.

D represents the adjustable screw.

C represents the pointer.

o represents a semispherical staple.

1 1 represent countersunk seats.

H represents a T-headed arbor.

N represents a T-ended collar.

b represents a conical-shaped washer.

i i represent conical shoulders.

This washer *b* is placed between the cylindrical clasp E and the adjustable screw D, and has a feather, *c*, to prevent it from turning upon the arbor H, but allowing, at the same time, a movement to and fro upon the arbor.

In fig. 4, the T-ended collar is represented as shoved back on the arbor H, away from the pointer C.

Having thus described the construction of my improved surface-gauge, I will now describe its operation and use.

I first unscrew the adjustable screw D. This unlooses all the adjustable parts, and allows the cylindrical clasp E to move freely up or down the spindle, and also the pointer C to move lengthwise between the concave clamps formed by the head of the T-headed arbor and the end of the T-ended collar, and allows, also, a revolving movement of the pointer C around its own centre, and also around the centre of the T-headed arbor H, and thus bringing the pointer C in any position desired.

I next (in order to hold the pointer C in this position) clasp the spindle B with one hand, and with the other tighten up the adjustable screw D, which presses against the conical-shaped washer *b*, and this, in turn, against a corresponding seat in the end of one of the bosses of the cylindrical clamp E, and, simultaneously, the arbor H draws its concave head against the pointer C, and this also, in turn, against the concave of the T-ended collar N, which presses its conical shoulder against a corresponding seat in the other boss of the clasp E.

Claims.

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

1. The T-headed arbor H, having a semi-cylindrical head, and semispherical staple *o*, in combination with the T-ended collar N, with its concave and semi-cylindrical end, for the purpose of forming a clasp, all constructed in the manner and for the purpose set forth and described.

2. The conical-shaped washer *b*, and feather *c*, in combination with the clasp E, nut D, and T-headed arbor H, constructed in the manner set forth and described.

WM. F. CORNELL.

Witnesses:

JOHN P. CHURCH,
G. F. PARTRIDGE.