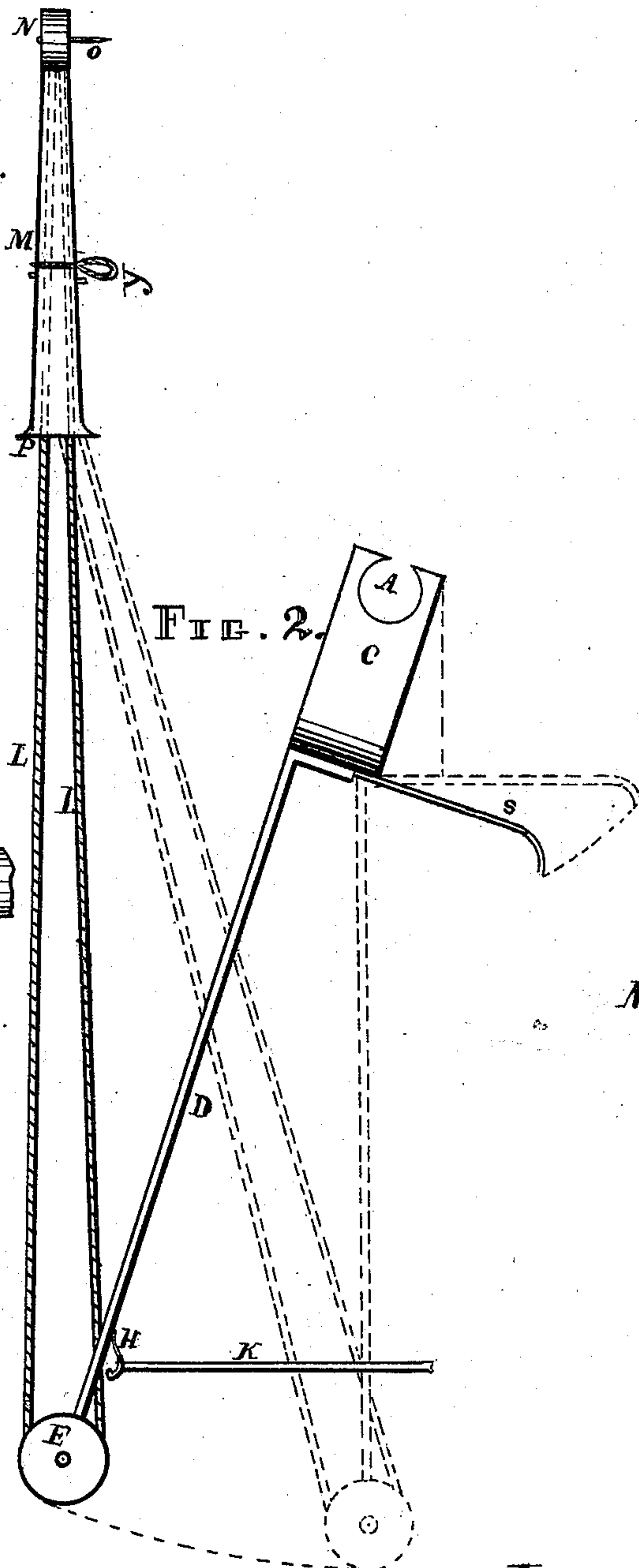
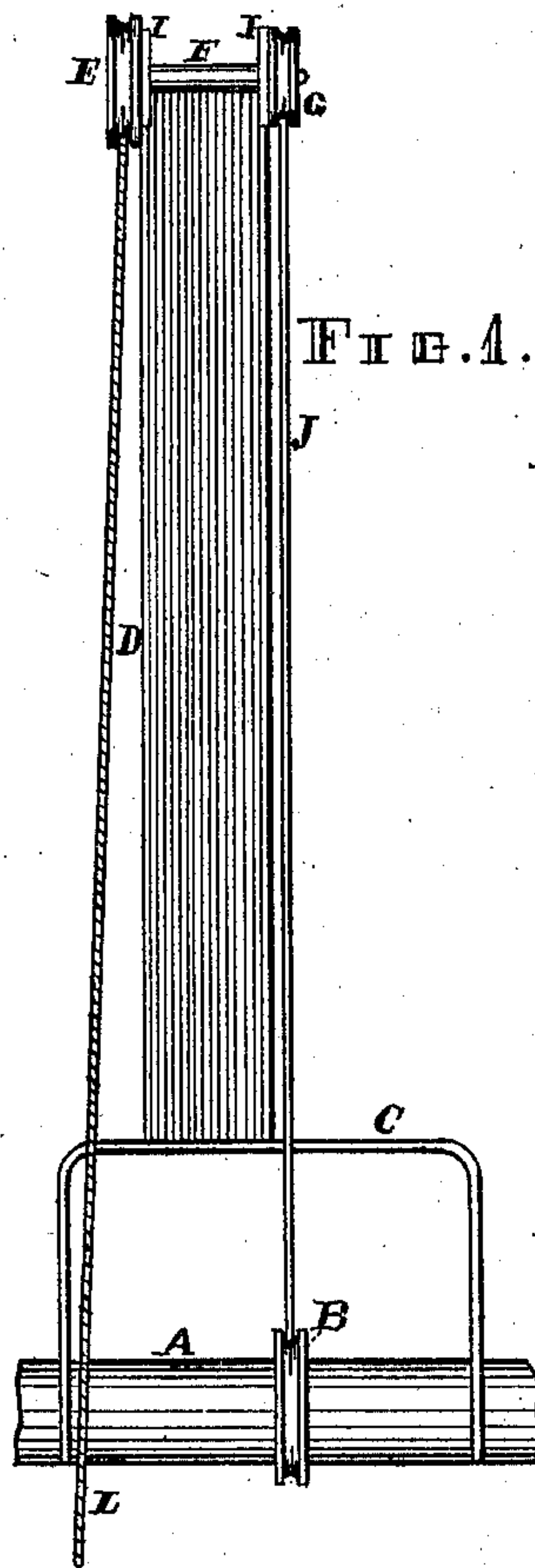


A. W. TODD.
DENTAL-DRILL.

No. 176,710.

Patented April 25, 1876.



Witnesses:

G. H. Chapin
O. H. Adix

Inventor:

Anderson W. Todd

UNITED STATES PATENT OFFICE.

ANDERSON W. TODD, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DENTAL DRILLS.

Specification forming part of Letters Patent No. **176,710**, dated April 25, 1876; application filed May 3, 1875.

To all whom it may concern:

Be it known that I, ANDERSON W. TODD, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and improved machine for drilling out and forming the cavities in teeth preparatory to filling or plugging them, for dressing off the plugs, and other valuable purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification, in which—

M N V L O R Y P, Figures 2 and 3, represent a metal tube-handle device. It is constructed by means of a section of metal pipe about five inches long and half an inch external diameter, one end of which is first annealed, and then one inch of it is flattened to a quarter of an inch diameter through the flat way, and this flat part is slotted down half an inch, and the bottom rounded out, and the sides of the slot bent a little outward, and then curved back, so as to leave their ends a little apart, which almost completes a hoop, both edges of which are faced off, and heads soldered on them, at the same time inclosing the grooved pulley R. Suitable holes are provided in both heads, and grooved pulleys for the reception of the drill-bits O, which are about five-eighths of an inch long, and are tapered very lightly from their middle, so as to catch fast in the grooved pulley only. The holes in the heads become the bearings for the shaft-drills O. In this case the drill serves the double purpose of shaft for grooved wheel and of drill-bit. To remove the drill, press its head against any hard substance, by which means any number of exchanges can be made. The other end of the handle M has the funnel P soldered in it, the object being to enable the cord-belt to glide smoothly, and without chafing, from all the directions it must necessarily come in the various operations.

The round bar V is soldered across the top

of the funnel in the same direction as that of the shaft-bit. The object of the round bar is to keep the cord-belt from crossing inside the handle. The cord-belt is about No. 16 wire gage, and its ends are passed one on each side of the grooved pulley through the openings provided between the ends of the sides of the slot, and out (properly leaving the round bar between them) through the handle. The ends are then united. The string loop Y, or some suitable arrangement, may be attached to the handle M, so as to give assistance in holding and pushing it. The handle is held in the fingers much like that of a pen in writing, and, in dextrous hands, the drill may be applied to almost any point in the teeth.

The device or apparatus A B C D E F G, Fig. 1, has forked feet C, which are rounded out, so as to spring over and be retained on the shaft or collar of the lathe-head A. Thereby a connection is formed between them, affording a back and forward motion, and the belt between the head of the lathe and pulley G forms another connection, whereby motion is given to the pulley E. Being thus arranged and connected by the putting of belt L in communication with the pulley E, full connection is made between the apparatus and lathe, as shown in the drawings.

Having shown my invention by drawings and described it by specification, what I claim, and desire Letters Patent for of the United States is—

1. In a dental drill, the combination of the tube-handle M, cross-bar V, cord L, pulley N, journaled by the tool O, all as and for the purpose specified.

2. The combination, with the lathe-head A and its shaft B, of the slotted feet C, section D, pulleys G E, foot F, and section D, Fig. 4, all as and for the purposes set forth.

A. W. TODD.

Witnesses:

SAMUEL STERNBERGER,
L. BACHE.