

T. L. BUCKINGHAM.
Teeth-Pluggers.

No. 142,205.

Patented August 26, 1873.

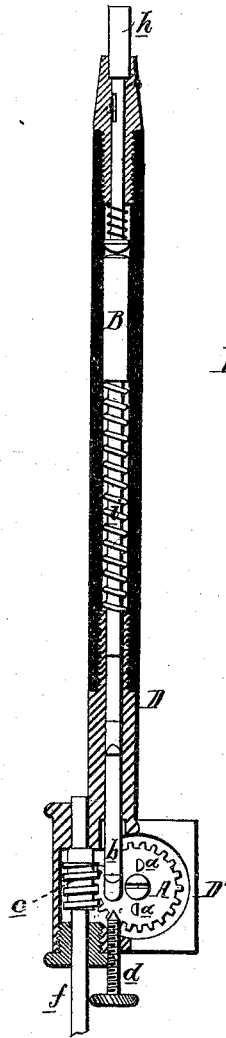


FIG. 1.

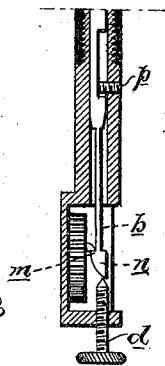


FIG. 2.

Witnesses, Harry Smith
Thomas McIlwain

T. L. Buckingham
by his attys
Hosson and Son

UNITED STATES PATENT OFFICE.

THOMAS L. BUCKINGHAM, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TEETH-PLUGGERS.

Specification forming part of Letters Patent No. **142,205**, dated August 26, 1873; application filed February 27, 1873.

To all whom it may concern:

Be it known that I, THOMAS L. BUCKINGHAM, D. D. S., of Philadelphia, Pennsylvania, have invented a Tooth-Plugging Instrument, of which the following is a specification:

The object of my invention is the actuating of the ram of a tooth-plugging instrument by simple mechanism which admits of such adjustment that the effect of the blow may be easily graduated, as circumstances may require; and this object I attain by the combination of the wheel A, having one or more projections, *a a*, with the elastic end *b* of the spring-ram B, shown in the sectional views, Figs. 1 and 2, of the accompanying drawing, the movement of the ram and the effect of the blow imparted to the same being regulated by a pointed set-screw, *d*, and the wheel A being driven by a worm, *e*, on a shaft, *f*, which receives its motion from the driving mechanism. The ram B is arranged to slide in the tubular stem D, and is prevented from turning therein by a screw, *p*, Fig. 2. In the same stem also slides the spring-rod *h* to be struck at one end by the ram, and to be applied at the other end to the tooth to be plugged. A spring, *i*, tends to force the ram B against the rod *h*, while the projections on the wheel A force the ram in a contrary direction, these projections bearing in succession as the wheel revolves against a shoulder, *m*, on the elastic end *b* of the ram, which is released from each projection by coming in contact with and being moved outward by the pointed end of the set-screw *d*, the extreme outer end *n* of the elastic portion *b* of the ram being rounded or beveled, as shown, where it comes in contact with the said screw. The length of the stroke of the ram, and consequently the force of the blow, will depend

upon the position of the point of the screw. The farther the latter is from the end of the ram the longer will each projection on the wheel retain its hold of the shoulder *m* and the longer will be the stroke of the ram, and the more forcible will be the blow imposed by the ram, the length of the stroke and force of the blow being diminished the nearer the point of the screw is to the end of the ram. The wheel A is contained in a chamber formed in the enlargement D' at the end of the tube D, and in the same enlargement turns the shaft *f* carrying the worm *e*. The arrangement of the driving-shaft *f* parallel to the tube D is the best for permitting the free manipulation of the instrument and for direct communication with the driving mechanism; hence my preference for the mode illustrated and described of driving the wheel A.

I claim as my invention—

1. In a tooth-plugging instrument, the combination of the ram with its elastic end *b*, and shoulder *m* with a wheel, A, or its equivalent, having a projection or projections adapted to the ram-shoulder *m*.

2. The combination of the above with the set-screw *d* or its equivalent.

3. The combination of the tubular stem D and its ram B, the wheel A and its projections, and the worm *e* on a shaft, *f*, arranged parallel to the said tubular stem, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

T. L. BUCKINGHAM, D. D. S.

Witnesses:

WM. A. STEEL,
HUBERT HOWSON.