W. LYLE.

BENCH-DOG.

No. 191,693. Patented June 5, 1877.

Fig 1.

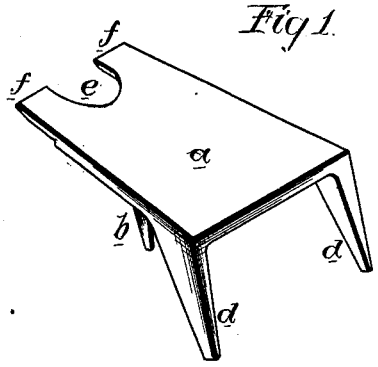


Fig 2

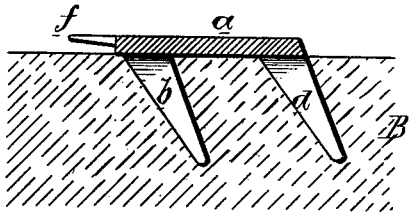


Fig 4

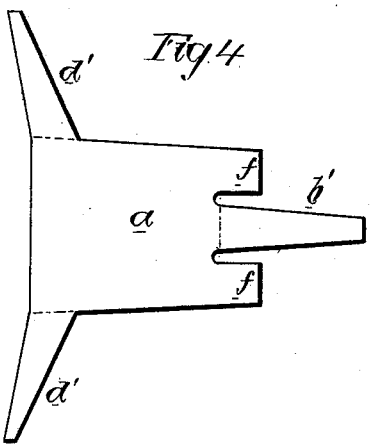
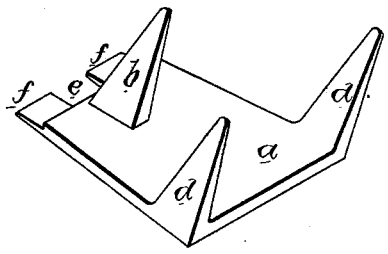


Fig 3



Witnesses
Henry Howson Jr
Harry Smith

Inventor
William Lyle
by his Attorneys
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UNITED STATES PATENT OFFICE.

WILLIAM LYLE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BENCH-DOGS.

Specification forming part of Letters Patent No. **191,693**, dated June 5, 1877; application filed May 17, 1877.

To all whom it may concern:

Be it known that I, WILLIAM LYLE, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Bench-Bits, of which the following is a specification:

The object of my invention is to make a cheap and effective bench-bit, which can be easily affixed to a carpenter's bench, or to a temporary substitute therefor, and as easily detached.

In the accompanying drawing, Figure 1 is a perspective view of my improved bench-bit; Fig. 2, a vertical section of the same; Fig. 3, a perspective view of the bit inverted, and Fig. 4 illustrates a plan of making the bit of wrought-iron or steel.

The bits to which my invention relates are such as are used in connection with carpenters' benches for resisting the thrusts imparted to wood by a plane.

My improved bit, as shown in Figs. 1 and 2, consists of a plate, *a*, on the under side of which are two tapering projections, *d d*, at the rear, and one similar projection, *b*, at the front, all these projections being inclined downward from front to rear, for a purpose rendered apparent hereinafter.

The front edge of the plate is preferably recessed at *e*, so as to form two projections, *f f*, which are reduced in thickness from the under side, as shown in Fig. 2, and made comparatively sharp, so as to penetrate the wood which is pushed against them.

The bit is preferably made of malleable cast-iron, so that it will resist the blows required for driving it into the wood B, this driving being easily accomplished by blows imparted to the top of the plate.

While the bit cannot be removed by pressure such as a plane will impart to the front end through the medium of the wood operated upon, it can be easily withdrawn by a chisel, screw-driver, or other like implement, inserted beneath the projections *f f*, and used as a lever, the inclinations of the projections *b* and *d* permitting this ready withdrawal.

It is this facility of applying and withdrawing the bit which renders it especially useful for jobbing carpenters who may have to make use of a plank, beam, or trestle as a temporary bench.

There may be two projections, *b*, in front; but I prefer one only.

The bit may be made of wrought-iron or steel in the manner shown in Fig. 4—that is, by first cutting out or striking up a plate of the form there illustrated, and then bending down the projections *b'* and *d'* to be driven into the wood. I, however, prefer to make the bit of malleable cast-iron.

I claim as my invention—

A carpenter's bit, consisting of a plate, *a*, having tapering projections inclined downward from the front to the rear of the said plate, all substantially as set forth.

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

WILLIAM LYLE.

Witnesses:

HERMANN MOESSNER,

HARRY SMITH.