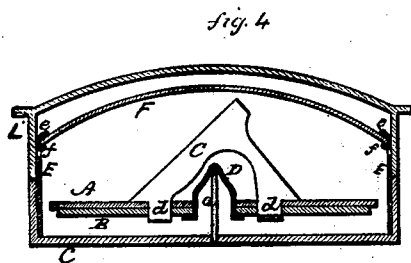
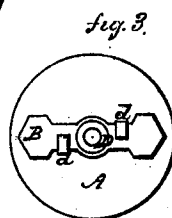
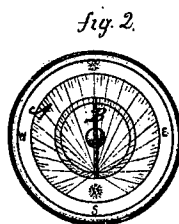


D. L. Smith,
Sun Dial.
No. 106,735. *Patented Aug. 23, 1870.*



Witnessed
J. H. Shumway
A. J. Tibbitts

Dwight L. Smith
 Inventor
 By his Attorney
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United States Patent Office.

DWIGHT L. SMITH, OF WATERBURY, CONNECTICUT.

Letters Patent No. 106,735, dated August 23, 1870.

IMPROVEMENT IN POCKET SUN-DIALS.

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, DWIGHT L. SMITH, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Combined Compass and Sun-Dial; and I do hereby declare that the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a side view with the case closed;

Figure 2, a top view open;

Figure 3, an under side view of the dial-plate, illustrating its construction; and in

Figure 4, a central section.

This invention relates to the construction of a compass and sun-dial combined; and

It consists in uniting the gnomon, dial, and needle by extending projections or points from the gnomon through the dial, and bent so as to clasp around and secure the dial, gnomon, and needle together; also, in the manner, as hereafter described, for securing the crystal into the case.

A is the dial.

B, the needle.

C, the gnomon; the dial graduated in the usual manner, and arranged upon the needle B, in the proper position; the needle provided with a seat, D, to rest upon a central bearing, *a*.

The dial is usually made from thin metal or paper

and perforated on the central line, so as to permit the projections or ends *d* of the gnomon to pass through. The needle is also perforated in the same relative position, so that the perforations designate the exact position required for the gnomon.

The said points, *d*, after passing through both the dial and needle, are turned both to the right and left, so that while they support the gnomon they at the same time secure the three parts together, so that they may be set upon the pivot *a*, as seen in fig. 4.

The pivot *a* is set in the center of the case C, and within this an auxiliary case or lining, E, is set, into the upper edge of which the glass crystal F is arranged, and this is secured to the lining E, by turning over the upper edge of the lining, then indenting below the crystal, as at *f*.

The lining extends above the case C so as to receive the cover L, as seen in figs. 1 and 4.

I claim as my invention—

1. The combination of the dial A, needle B, and gnomon C, constructed and united together by the extension D of the gnomon, through both the dial and needle, in the manner described.

2. The combination of the gnomon C, cover L, lining E, and crystal F, as described, and when the dial is secured in the lining, in the manner set forth.

DWIGHT L. SMITH.

Witnesses:

GEORGE H. COWELL,

JNO. D. BENHAM.