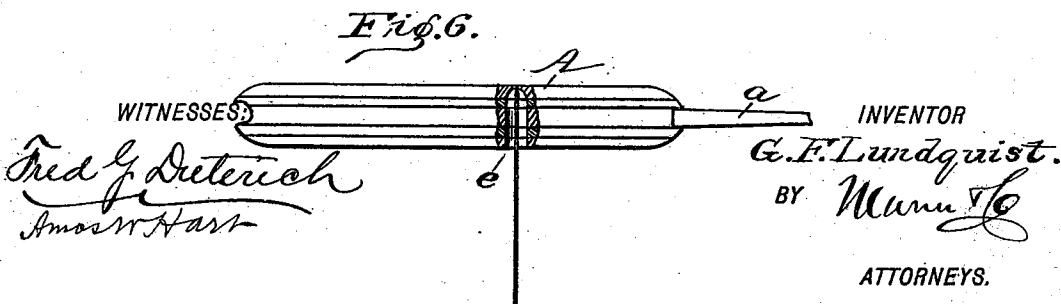
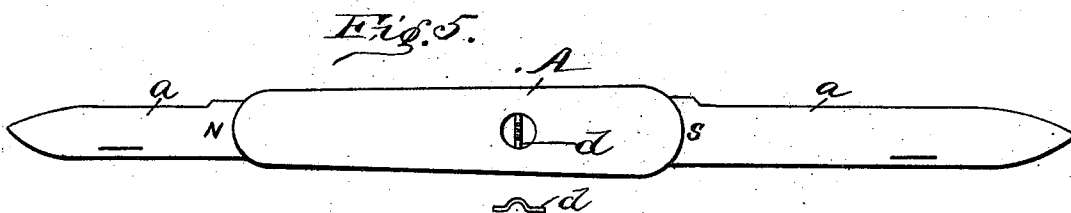
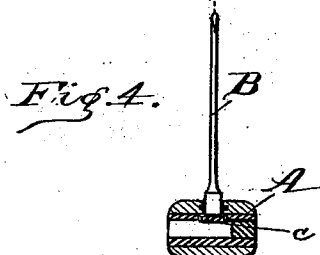
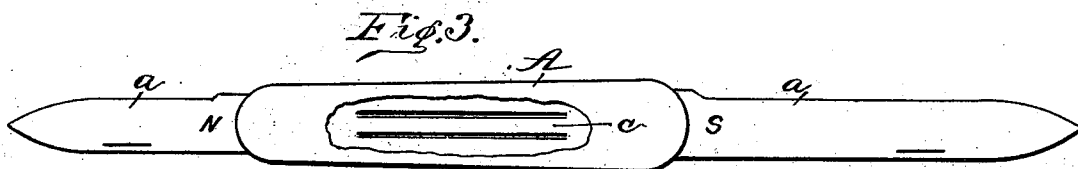
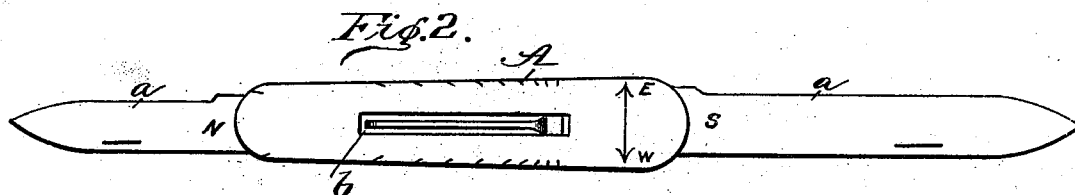
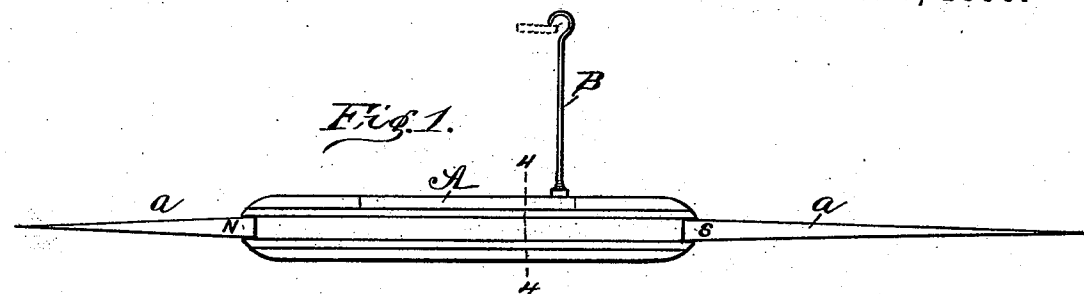


(No Model.)

G. F. LUNDQUIST.
POCKET KNIFE.

No. 510,038.

Patented Dec. 5, 1893.



WITNESSES

Fred G. Deterich
Amos W. Hart

INVENTOR

G. F. Lundquist.

BY

Marion C.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GUSTAF F. LUNDQUIST, OF SILVERTON, COLORADO.

POCKET-KNIFE.

SPECIFICATION forming part of Letters Patent No. 510,038, dated December 5, 1893.

Application filed March 8, 1893. Serial No. 465,125. (No model.)

To all whom it may concern:

Be it known that I, GUSTAF F. LUNDQUIST, of Silverton, in the county of San Juan and State of Colorado, have invented a new and useful Improvement in Knives, of which the following is a specification.

The object of my invention is to adapt a pocket or other knife to be conveniently used as a substitute for a magnetic needle, for the purpose of indicating the points of the compass. To this end, I construct a knife and provide attachments therefor as hereinafter described and shown in accompanying drawings, in which—

Figure 1 is an edge view of a pocket knife having its blades open and provided with a suspending hook in open position. Fig. 2 is a plan view of such knife, the hook being folded, or turned down. Fig. 3 is a plan view of the knife proper, part of the handle being broken away to show the construction of the spring. Fig. 4 is a cross section on line 4—4 of Fig. 1. Fig. 5 is a plan view of a knife showing a modification. Fig. 6 is an edge view of a knife showing another modification.

As shown, the handle, A, of a pocket knife has a hinged, folding blade, a, at each end, and all are made of steel, and magnetized so that the blades, or terminals, have opposite polarity. Hence, when the knife is suspended and balanced horizontally, in such manner that it is free to rotate, one blade will point north and the other south. The preferred means of suspension is a hook, B, which is hinged to the handle, A, at or about its middle and adapted to fold into a lengthwise recess, b, in the handle, so as to lie flush, or nearly so, with the surface of the latter, when folded and not required for use. In order to hold the hook, B, in open or closed position, its inner end is arranged to bear against a spring, c. The latter may be conveniently formed integrally with side pieces or frame of the knife handle, as shown in Figs. 3 and 4 so that a portion of such frame is free to bend inward independently of the remaining portion of the same. The hook proper has a sharp and hardened point, to adapt it to rest

and turn easily on a hard surface, when it is desired to support the knife in that way, as shown by dotted lines Fig. 1, but a rubber string, or piece of untwisted thread, or fiber, may be attached to the hook as a means of suspension, as is also shown by dotted lines in Fig. 4. It will be apparent, that, when thus suspended and the blades, a, are open, the knife being balanced horizontally, it is free to rotate, and the polarity of the blades will cause it to assume a position due north and south, thereby indicating such points of the compass with accuracy.

Instead of employing the hook, B, as a means of suspension, I may attach a string or thread directly to the knife, A, and for this purpose, the handle may have a pin, d, Fig. 5, fixed in a recess. Or I may provide the handle with a cup-shaped socket, e, as shown in Fig. 6, and balance the knife on a needle, or other pointed instrument. In such case, the socket, e, may be formed in the inner side of the upper portion of the handle, and will necessarily have a hard polished bottom. The needle employed may be conveniently carried in a longitudinal pocket (not shown) formed in the handle. I may also provide the handle with a transverse central hole, or slot for receiving a pin, or rod, which will be passed through it, the said rod being held in horizontal position, so that the knife may balance and turn thereon.

It is apparent I may apply the several means of suspension to the back of the knife, instead of its side; but the latter is preferable, since the knife then offers less resistance to the wind.

As shown in Fig. 2, the handle is provided with lines radiating from the center or point of suspension, and these will, in practice, be numbered, to distinguish them.

When the knife is suspended as before described, and the light of the sun is not unduly obscured, the point where the shadow of the straight shank of the hook, B, falls on the handle, will indicate the time of day with a fair degree of accuracy.

What I claim is—

1. A knife whose ends, or terminals, have

opposite magnetic polarity and whose handle is adapted for application of means for supporting the knife horizontally but free to rotate, as shown and described.

- 5 2. The combination with a knife handle whose steel side piece is slitted to form an integral spring, of a hook hinged to said han-

dle at a point directly over the spring, as shown and described.

GUSTAF F. LUNDQUIST.

Witnesses:

CHARLES M. CAMPBELL,
G. M. VARNUM.