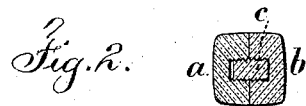
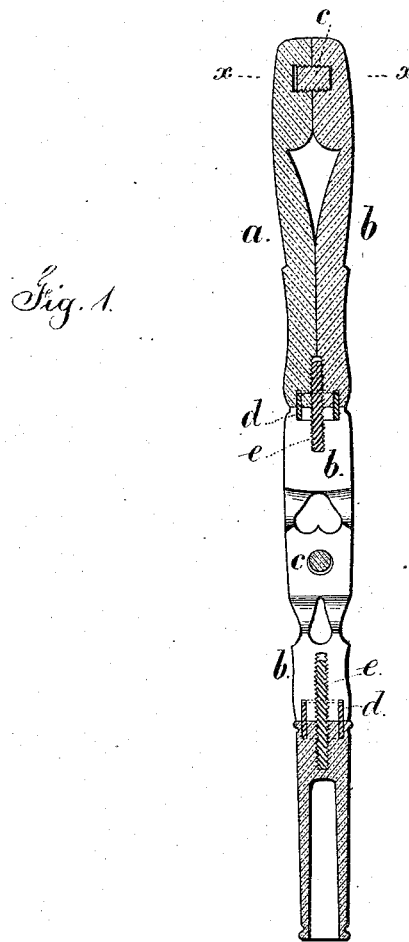


E. LAYMAN.
Umbrella-Handle.

No. 160,603

Patented March 9, 1875



Witnesses,

Chas. H. Smith
Rowland Sewell

Inventor

Ephraim Layman
per L. W. Perrell
att'y

UNITED STATES PATENT OFFICE.

EPHRAIM LAYMAN, OF BROOKLYN, E. D., NEW YORK, ASSIGNOR TO
LAYMAN & AUKNER, OF SAME PLACE.

IMPROVEMENT IN UMBRELLA-HANDLES.

Specification forming part of Letters Patent No. **160,603**, dated March 9, 1875; application filed
December 22, 1874.

To all whom it may concern:

Be it known that I, EPHRAIM LAYMAN, of Brooklyn, E. D., in the county of Kings and State of New York, have invented an Improvement in Handles for Umbrellas, &c., of which the following is a specification:

Difficulty is experienced in making handles for umbrellas, parasols, knives, &c., out of bone, because the bone is hollow and not sufficiently thick to be cut up into pieces of the size necessary for such handles. Efforts have been made to unite two or more pieces of bone together to form such handles, but they have been liable to various objections. The slabs or pieces have been riveted together, but the rivets mar the appearance. There have been screws cut around the ends of these sections, and screw-bands have been placed thereon, but metal is objectionable in appearance, and bone is liable to crack and break; and metal rings have been let in flush with the surfaces of the sections at the ends.

My invention relates to securing these sections by an internal screw toward the middle or one end of the sections, and then holding the sections from being turned upon each other by a socket at one end, and where this socket is to be out of sight it is formed of a short metal cylinder entering circular grooves in the opposite ends, that are brought together, so that one length is secured to the next by the same means that are employed to hold the sections one to the other. By this means the most beautiful and strong handles can be made cheaply.

In the drawing, Figure 1 is a longitudinal section, and Fig. 2 is a cross-section at the line *x x*, of the improved handle.

The sections *a b* are screwed together by the internal concealed screw *c*, that is preferably of bone, and is inserted into holes in the opposing faces of the sections, said holes having threads cut in them, and the sections are screwed together by rotating one or the other around the screw *c* until the surfaces of *a* and

b are made to bear firmly upon each other. The screw *c* may be in the middle or toward one end of the handle, and a socket at the end prevents the sections *a b* being turned upon each other. This socket may be of bone, and of sufficient size to receive the ends of the sections *a b*; but I prefer to make the socket of the short metal cylinder *d*, that is introduced into an annular groove formed at the end of each section, and these annular grooves are of a depth equal to about half the length of the metal cylinder, so that the cylinder *d* enters both grooves in the adjoining lengths, and to draw the parts together the screw *c* is inserted into the holes provided for it.

These means for uniting the separate sections of bone are very strong, reliable, durable, and cheap, and the handle can be carved, engraved, or finished in any desired manner, and the connecting devices do not extend to the surface.

This mode of constructing handles is especially adapted to bone; but it may be used with ivory or other material that has to be united in sections, and these handles may be adapted to parasols, umbrellas, knives, forks, &c.

I claim as my invention—

1. The handle made of the sections *a b*, united by the internal concealed screw *c*, and provided with a socket at one end, as set forth.

2. A handle having the short cylinder *d* inserted at one end into a circular groove in the sections *a b*, and at the other end entering a similar groove in the next length, in combination with the connecting-screw *c*, as set forth.

Signed by me this 17th day of December,
A. D. 1874.

EPHRAIM LAYMAN.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.