## 1. 1. 1/1/2/25.

## Peresine Hizze

190,330.

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Fig.1

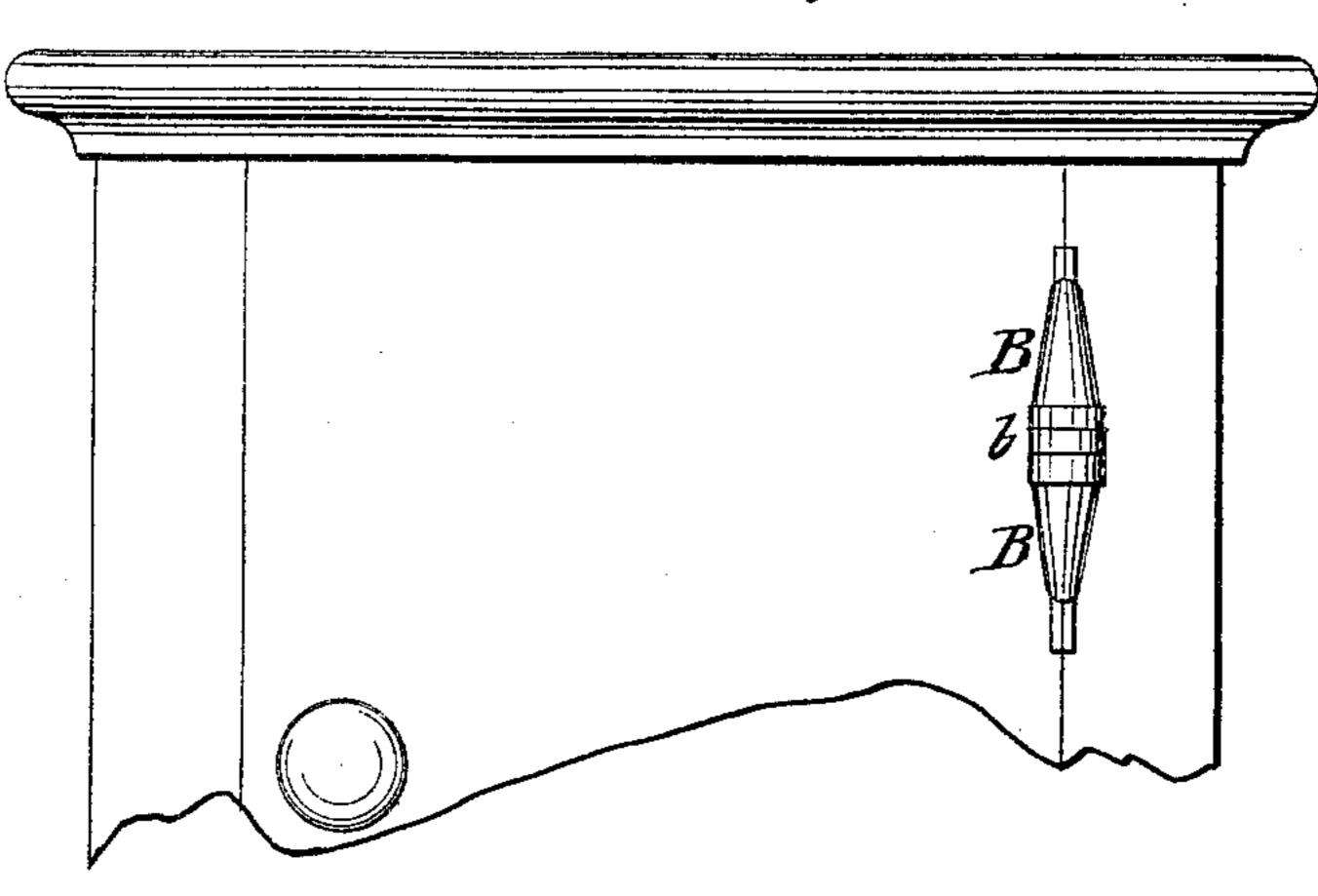


Fig.2.

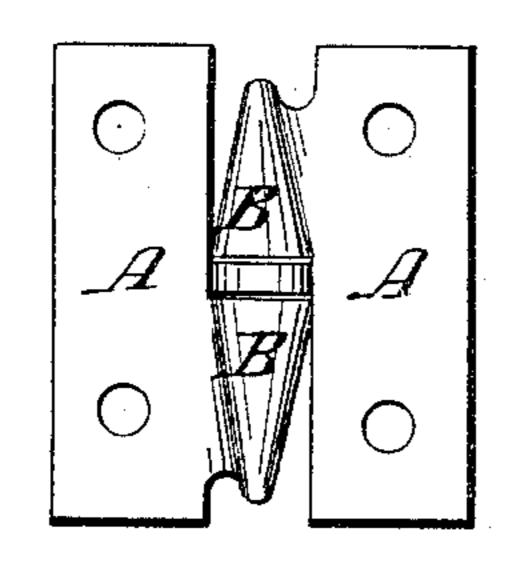


Fig.3.

ABA

Fig. 4.

Witnesses. GEo.W.Roshwers Adolph Rock Invento, H. Dolters by Shull iedersheim Atty.

# Anited States Patent Office.

### H. J. WOLTERS, OF SALEM, MASSACHUSETTS.

Letters Patent No. 90,330, dated May 18, 1869.

#### IMPROVED REVERSIBLE HINGE.

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, H. J. Wolters, of Salem, in the county of Essex, and State of Massachusetts, have invented a new and useful Reversible Hinge; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains, to fully understand and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of a portion of a door or

shutter, having my hinge applied thereto.

Figure 2 is a front view of the hinge fully opened.

Figure 3 is a top view thereof.

Figure 4 is a view of the friction-box.

Similar letters of reference indicate corresponding

parts in the several figures.

My invention consists in a hinge, which is readily reversible to a right and left-hand door or shutter, and operates with but little friction.

In the drawings—

A represents the leaves of a hinge, each of which is formed with a socket, B, the openings of which, when in position on the door or shutter and frame, will face each other.

C represents the friction-boxes or pintles, each of which consists of two cones a a, jointed at their bases,

with a disk or shoulder, b, between them.

The cones are adapted to enter the sockets, and

move readily therein.

The shoulders form part of the bearing-surfaces of the hinge, and, when in position, are between the sockets, as seen in figs. 1 and 2.

Besides this, the sockets are closed at one end, and form cups to receive and retain oil for lubricating-purposes. Owing to the shape of their outer faces, water finds no lodgment on the upper ones, and cannot enter the lower ones in consequence of the washer of the pintle.

It will be perceived that the hinge is readily adapted for right and left doors or shutters, by merely chang-

ing the location of the leaves.

The friction-boxes or pintles correspond with all the

sockets, and enter and receive either of them.

The hinges work with comparatively little friction. They allow doors and shutters to open and close to their full extent, and for large buildings will be found exceedingly useful. They are alike simple and practical.

I am aware that it is not new to construct a removable pintle, having a central washer, nor is a reversible hinge new in itself, and I therefore do not claim them; but having thus described my invention,

What I claim as new, and desire to secure by Let-

ters Patent, is—

The hinge, consisting of the two closed conical sockets B, and the double-conical pintle a a, with washer b, when constructed to operate together as described.

To the above I have signed my name, this 28th day of April, 1869.

H. J. WOLTERS.

Witnesses:

JOHN A. WIEDERSHEIM, GEO. W. ROTHWELL.