

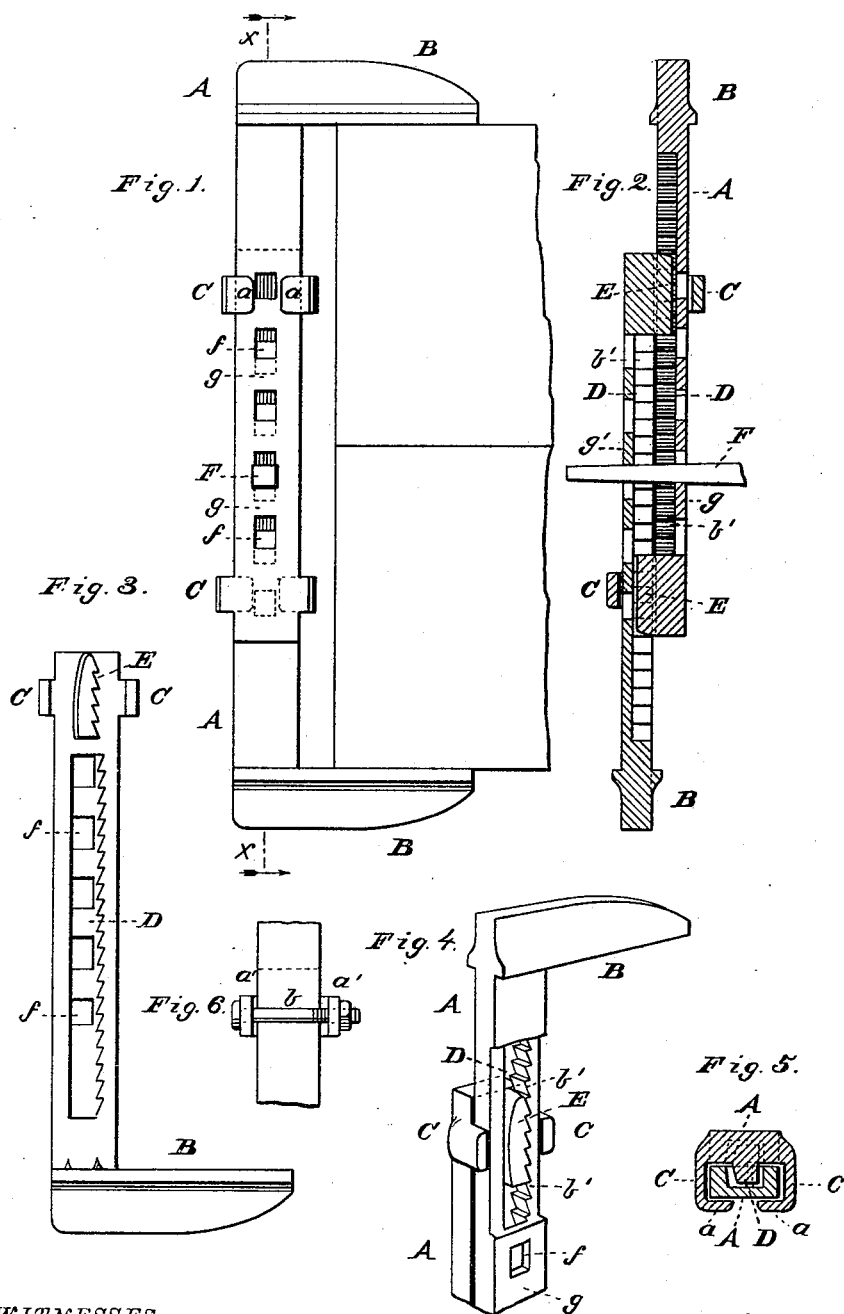
(No Model.)

P. S. GRAVES.

EXTENSION CLAMP.

No. 386,065.

Patented July 10, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

PETER SAMUEL GRAVES, OF PORT HENRY, NEW YORK.

EXTENSION-CLAMP.

SPECIFICATION forming part of Letters Patent No. 386,065, dated July 10, 1888.

Application filed March 20, 1888. Serial No. 267,816. (No model.)

To all whom it may concern:

Be it known that I, PETER SAMUEL GRAVES, a citizen of the United States, and a resident of Port Henry, in the county of Essex and State of New York, have invented certain new and useful Improvements in Extension - Clamps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention and is a side view. Fig. 2 is a vertical section taken where the broken line *x x* is marked on Fig. 1. Fig. 3 is a plan view of the inner side of one of the clamps. Figs. 4 and 5 are details, the first being shown in perspective, with a part broken away, and the second a cross-section. Fig. 6 shows a modification.

The invention relates to improvements in extension-clamps for flasks; and it consists in the construction and novel combination of parts, as hereinafter set forth.

Referring to the drawings, A designates the two clamp-bars having their outer ends turned outward at right angles, B, to engage the upper and lower edges of the flask. Wrought-iron keeper-straps C are integral with the clamp-bars near the inner end. The keeper-straps are turned upward and over the edge of the clamp-bars, as at *a*; or the ends may be perforated, as at *a'*, and the bolt *b* inserted above the outer face of the bars. The straps should be sufficiently loose to allow adjustment of the two clamp-bars. On their inner faces the bars A are longitudinally recessed, as shown at D, and trans-

verse rack-teeth *b'* are provided at one side of the recess, the detent side, *c*, of the teeth standing toward the angle B. A short rack, E, is cast upstanding from the inner end of each clamp bar, and is adapted to slide within the recess of the adjacent bar and engage the rack-teeth of said recess. The racks E are somewhat narrower than the recesses, so that by pulling the two bars laterally in opposite directions the rack E is disengaged from the teeth in the recesses, thus allowing the clamps to be opened. A series of slot openings, *f*, in the clamp-bars are designed for the entrance of a lever, F, by means of which the clamp is retracted upon the flask. As will be observed in the drawings, the transverse portions *g* between the slot-openings of one clamp-bar act as fulcrums for the lever as its end engages the transverse portion *g'* of the opposite bar.

Having described my invention, what I claim is—

1. In an extension clamp, the two bars, each having an end turned outwardly, the short rack, and the recess provided with rack-teeth, substantially as specified.

2. The two clamp-bars, each having the outwardly-turned end, the keeper-straps, the recess, the rack-teeth, and the short rack, substantially as specified.

3. The two clamp-bars, each having an end turned outwardly at right angles, the recess provided with the rack-teeth, the short rack, the slot-openings, and the keeper straps, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

PETER SAMUEL GRAVES.

Witnesses:

THEODORE TROMBLEE,
PETER LE CLAIR.