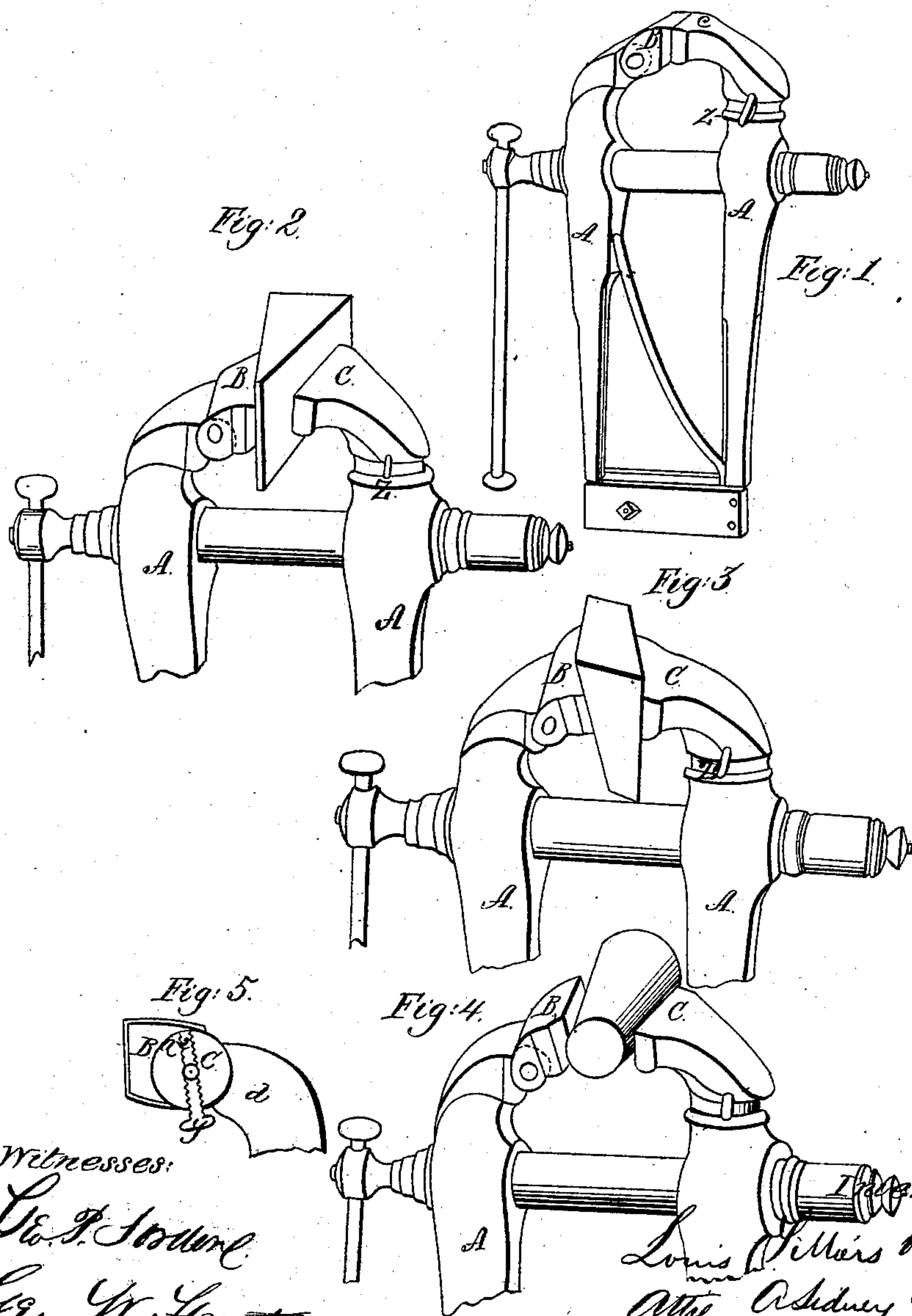


L. Tilliers,

Vise.

N^o 32,093.

Patented Apr. 16, 1861.



Witnesses:
Geo. P. Stoddard
Geo. W. Hunt

Inventor:
Louis Tilliers by his
Atty Asbury Dourne

UNITED STATES PATENT OFFICE.

LOUIS TILLIERS, OF MOTT HAVEN, NEW YORK.

WISE.

Specification of Letters Patent No. 32,093, dated April 16, 1861.

To all whom it may concern:

Be it known that I, LOUIS TILLIERS, of Mott Haven, Westchester county, in the State of New York, have invented, made,
5 and applied to use a new and Improved Vise; and I do declare the following to be a full, clear, and correct description of the same, reference being had to the accompanying drawings, and to the letters of reference
10 marked thereon, in which—

Figure 1. is a view of my improved vise when used as the ordinary vise. Figs. 2, 3, and 4. are views in which the capacity of the vise to grasp metal or substances of irregular forms, is illustrated. Fig. 5. is a
15 sectional view, showing the means employed by me to adjust the front jaw.

In the drawings, like parts of my invention are designated by similar letters of reference.
20

To enable others skilled in the art to make and use my invention I will speak of its construction and operation.

It is well known that much difficulty has
25 been heretofore experienced in grasping in a vise provided with stationary jaws, irregular surfaces of iron or metal, and that it has been usual in such cases to hold the metal firmly by pieces of metal or wedges placed
30 between the jaws and the metal or iron.

C. B. Clark in 1858 obtained a patent for improvements in vises, and although a movable jaw had been employed prior to his invention, we may safely regard Clark's as
35 the best movable jaw vise as yet made but in Mr. Clark's vise but one movable jaw or but one jaw that will incline itself is employed, and only at an angle of from 5° to 8°.

40 With a view to produce as perfect and complete a vise as possible and one that shall be capable of accommodating any substance no matter how irregular its form and angle I propose to construct a vise having both its
45 jaws automatic and yet so regulated that the vise shall readily answer all the purposes of the ordinary vise when desired. For this purpose I attach to the vise A, the two jaws B and C, the former of which operates as
50 follows—this jaw B is made movable that it may present itself either vertically or

angularly: and when angularly, the summit of the angle can be thrown upward or turned downward as required. To turn the jaw down or throw the same up, the jaw B
55 is grooved on its back as at a^2 Fig. 5, and plays freely upon the roller c , attached to the jaw-support d , and over which the grooved portion of the jaw B is placed, and to which it is attached by screws $e e$, at the
60 ends of the roller c . The second jaw C is rendered movable also that it may always present itself vertically or parallel with the front jaw B or at an angle to it. This jaw C assumes the obliquity necessary to firmly
65 grasp the object.

In order that the jaw B may be held firmly in a vertical position, the jaw B being hinged to the roller as shown is regulated by means of set screw y , by means of which the face of
70 the said jaw B is held in a vertical position or thrown into an oblique one, when desired—while the jaw C being provided with a swivel joint, allowing said jaw to move vertically is held firmly in any required position by set screw Z.
75

To illustrate how perfectly capable of grasping and holding firmly a substance no matter how irregular its form, I have shown on the drawings hereunto annexed three
80 views, in which irregular forms of metal are shown firmly grasped and held by the movable jaws B and C. In one case, a cone is shown, which can be grasped between the jaws B and C, whether its base shall be at its
85 right or left end, up or down, or even obliquely.

I am not aware that any vise has yet been constructed capable of accommodating a
90 piece of metal with four irregular sides.

Having thus set forth my invention, what I claim as new and desire to secure by Letters Patent is.

A vise, in which one limb has the jaw B hinged with a vertical movement and the
95 other with the jaw C with a horizontal movement, the whole arranged, constructed and operating as and for the purpose set forth.

LOUIS TILLIERS.

In presence of—

A. SIDNEY DOANE,
GEO. T. GORDON.