

G. P. BLACKISTON.

WISE.

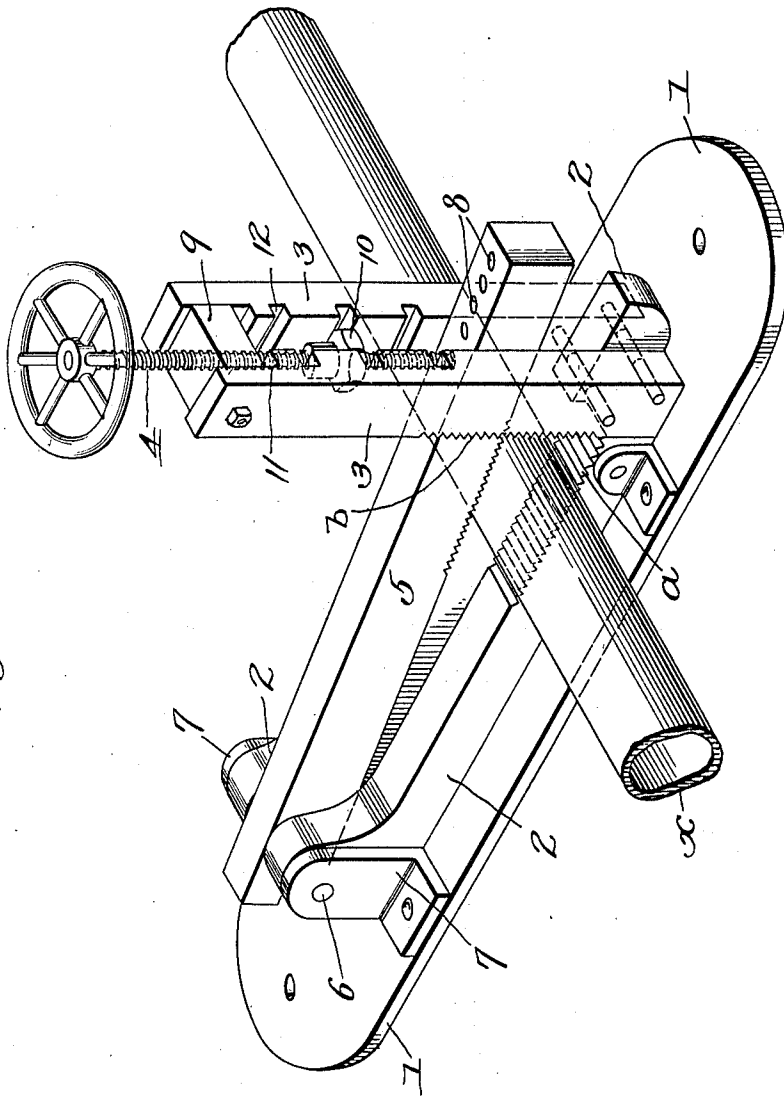
APPLICATION FILED MAR. 4, 1908.

1,048,643.

Patented Dec. 31, 1912.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

H. B. Cornwall,
Edw. R. Walton, Jr.

INVENTOR

G. P. Blackiston

By J. H. K. Lee

Attorney

G. P. BLACKISTON.

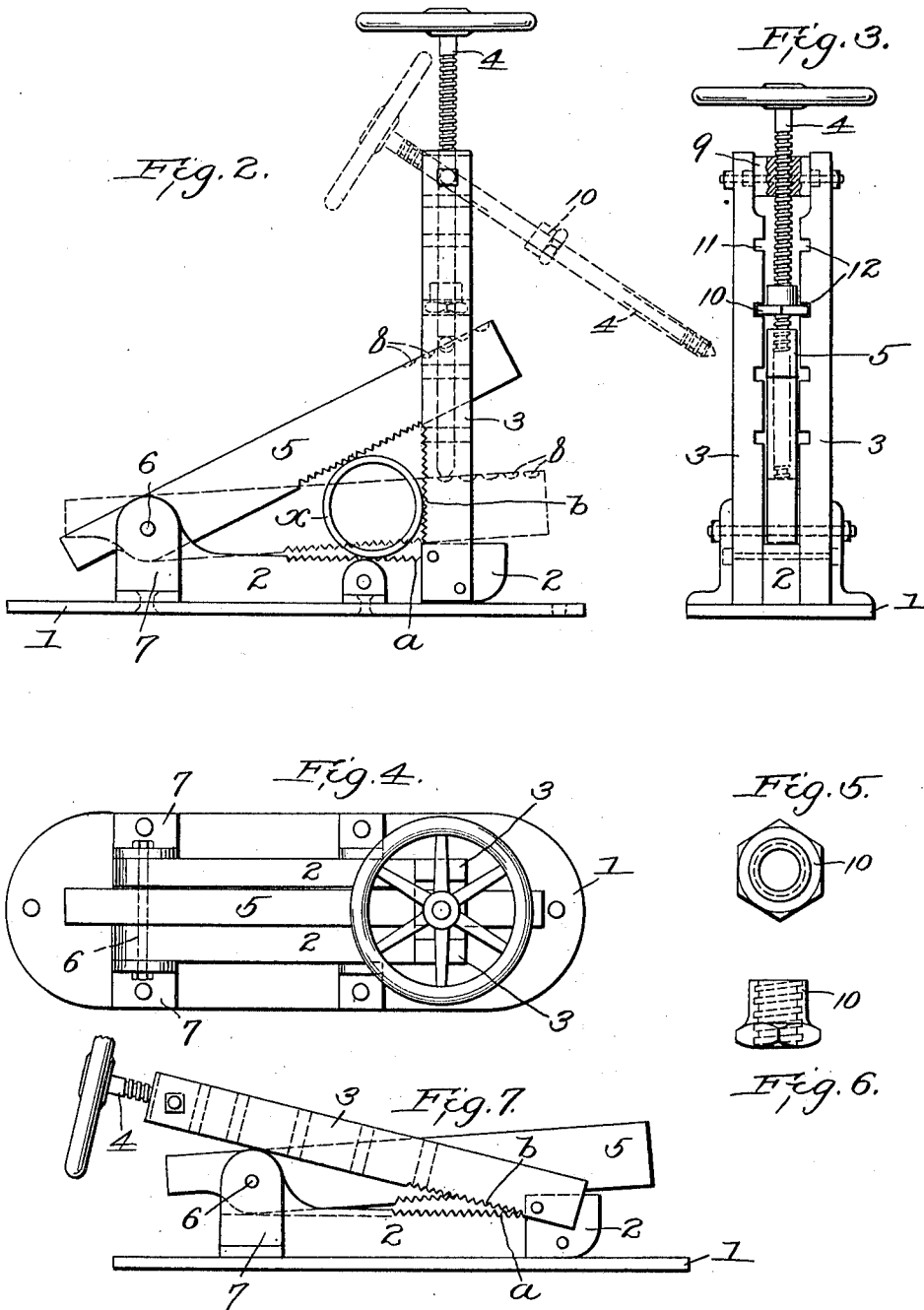
WISE.

APPLICATION FILED MAR. 4, 1908.

1,048,643.

Patented Dec. 31, 1912.

3 SHEETS-SHEET 2.



WITNESSES
H. B. Cornwall,
[Signature]

INVENTOR
G. P. Blackiston
By *J. H. T. Lee* Attorney

G. P. BLACKISTON.

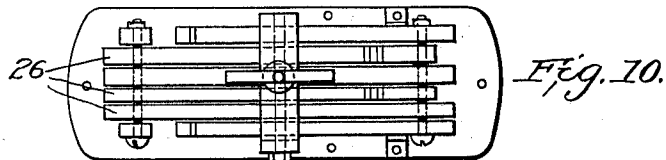
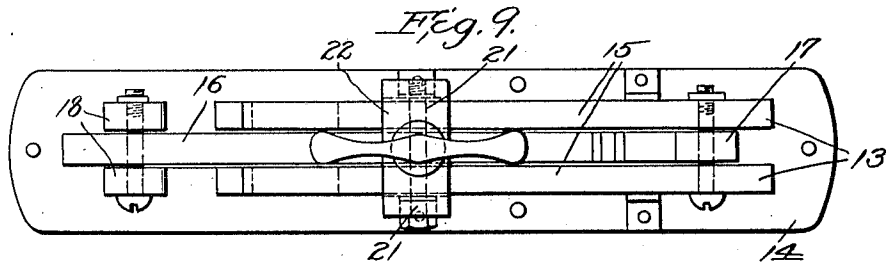
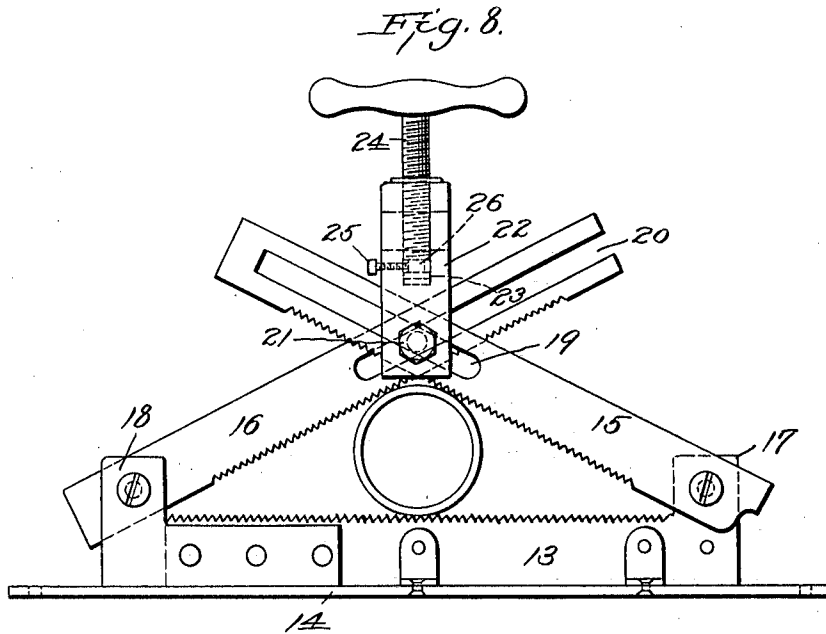
WISE.

APPLICATION FILED MAR. 4, 1908.

1,048,643.

Patented Dec. 31, 1912.

3 SHEETS-SHEET 3.



WITNESSES

H. B. Cornwall,

Geo. R. Walton

INVENTOR

G. P. Blackiston

By *J. H. L. H. H. H.* Attorney

UNITED STATES PATENT OFFICE.

GEORGE P. BLACKISTON, OF PITTSBURGH, PENNSYLVANIA.

WISE.

Specification of Letters Patent.

Patented Dec. 31, 1912.

1,048,643.

Application filed March 4, 1908. Serial No. 419,104.

To all whom it may concern:

Be it known that I, GEORGE P. BLACKISTON, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Vises, of which improvement the following is a specification.

My invention relates to improvements in 10
vises for holding pipe or similar articles.

The object of my invention is to produce a vise possessing a three-point gripping surface in which the fewest number of parts and the greatest simplicity of construction 15
is attained, and which is portable and is capable of being adjusted to receive pipes of varying and different diameters. I accomplish this object by means of apparatus hereinafter more specifically described, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved device. Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation. Fig. 25
4 is a plan view. Figs. 5 and 6 are details. Fig. 7 is an elevation showing the tool closed. Fig. 8 is a side elevation of a modified form of my device. Fig. 9 is a plan view of the same. Fig. 10 is a plan view of a further 30
modification.

I will now describe my invention, referring to said drawings: Referring to said drawings, 1 is a base or support to the rear end of which is secured the horizontally disposed member 2, the forward end of which has pivotally secured thereto a vertically disposed member or members 3, in which or between which the pressure screw 4 is mounted. The said member 2 comprises two parallel bars, which are secured to the base 1, in any suitable manner, and between which the pressure bar 5 is disposed, the rear end of said bar being pivotally mounted on the shaft or rod 6, which is journaled in the 45
lugs 7, which may be integral with the base. The said members 2 and 3 are toothed or serrated at the points *a*, *b*, and the pressure bar 5 is toothed or serrated on the under surface at the forward end thereof, these 50
serrations or teeth being for the purpose of producing gripping surface upon the pipe *x* when the same is held between the said toothed surface. The upper surface of the pressure bar 5, at the extreme outer end thereof, is provided with a number of indentations or sockets 8, in which the lower

rounded end of the pressure screw 4 is adapted to be seated. The said pressure screw is mounted in a cross piece 9 at the upper end of the members 3 and is capable 60
of being oscillated or swung therein, as shown in Fig. 2, for the purpose of enabling the pressure bar to be elevated and lowered toward the pipe that may be operated upon. The said screw, is supported in the guide 65
nut 10, the flange of which is adapted to be seated in the slots 11, 12 formed in the vertical members.

In Figs. 8 and 9 I show a modified form of my device in which the horizontal members 13 are suitably secured to the base 14, and in which instead of one pressure bar two bars 15, 16 are secured, the said bars being respectively pivotally secured to the lugs 17, 18 at the opposite ends of the members 75
13. The said bar 15 is provided with a slot 19 which extends from a point substantially intermediate its length to near the free end thereof, and the bar 16 is provided with a slit 20 in its outer end. A rod 21 projects 80
through said slots and through orifices formed in the lower bifurcated end of the screw member 22, the said bars 15 and 16 being loosely secured in the bifurcated end of said member 22 by said rod. The upper end 85
of said member 22 is provided with a threaded socket 23 in which the pressure screw 24 is adapted to operate, for the purpose of exerting pressure upon the bars 15 and 16 as shown in Fig. 8. A set screw 25 90
engages in an annular recess 26 in the lower end of the pressure screw for the purpose of locking same to the member 22, whereby the required pressure is transmitted upon the pipe. A hand wheel mounted on the upper 95
end of the screw serves to operate same. It will be noted that a three-point gripping surface is secured with the fewest possible number of parts, and that the tool is capable of being thrown into a form in which the utmost 100
portability is secured.

In Fig. 10 I show a further modified form of my device, in which the bars 26 are identical in function and construction with the bars 15 and 16 and 5 being increased in 105
number only. The rest of the device shown is identical with that shown in Figs. 8 and 9.

Having described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a vise, the combination of a bar formed at an intermediate point in the

length thereof with a gripping surface, a member projecting laterally from one end of the bar and also formed upon one side thereof with a gripping surface, a pressure bar pivotally connected to the opposite end of the first mentioned bar and formed upon one side thereof with a gripping surface adapted to cooperate with the two before mentioned gripping surfaces to engage circumferentially at three separate points a pipe inserted between the members, and means carried by the member projecting laterally from the bar for engaging the free end of the pressure bar to force it toward the first mentioned bar.

2. In a vise, the combination of a bar formed at an intermediate point in the length thereof with a gripping surface, a member projecting laterally from one end of the bar and also formed with a gripping surface, a pressure bar pivotally connected to the opposite end of the first mentioned bar and formed with a third gripping surface adapted to cooperate with the two before mentioned gripping surfaces to engage circumferentially at three separate points a pipe inserted between the members, a bearing nut adjustably mounted upon the laterally projecting member, and a pressure screw threaded in the bearing nut and engaging the swinging end of the pressure bar to force it toward the first mentioned bar.

3. In a vise, the combination of a bar formed with a gripping surface, a member projecting laterally from one end of the said bar and formed with a series of slots, a cross piece pivotally mounted upon the said mem-

ber, a pressure screw passing loosely through the cross piece so as to be swung laterally with the cross piece, a bearing nut threaded upon the pressure screw and constructed to engage selected ones of the before mentioned slots, and a pressure bar pivotally connected to the opposite end of the first mentioned bar and formed with a gripping surface, the said pressure bar being engaged by the pressure screw.

4. In a vise, the combination of a bar formed with a gripping surface, a member projecting laterally from one end of the said bar and also formed with a gripping surface, the said member having a series of slots therein, a cross piece pivotally mounted upon the said member, a pressure screw passing loosely through the cross piece so as to be swung laterally therewith, a bearing nut threaded upon the pressure screw and constructed to engage selected ones of the before mentioned slots, and a pressure bar pivotally connected to the opposite end of the first mentioned bar, the said pressure bar being engaged by the said pressure screw and being constructed with a gripping surface adapted to cooperate with the two before mentioned gripping surfaces to engage circumferentially at three separate points a pipe inserted between the members.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE P. BLACKISTON.

In the presence of—

CLARENCE A. WILLIAMS,
JOHN H. RONEY.