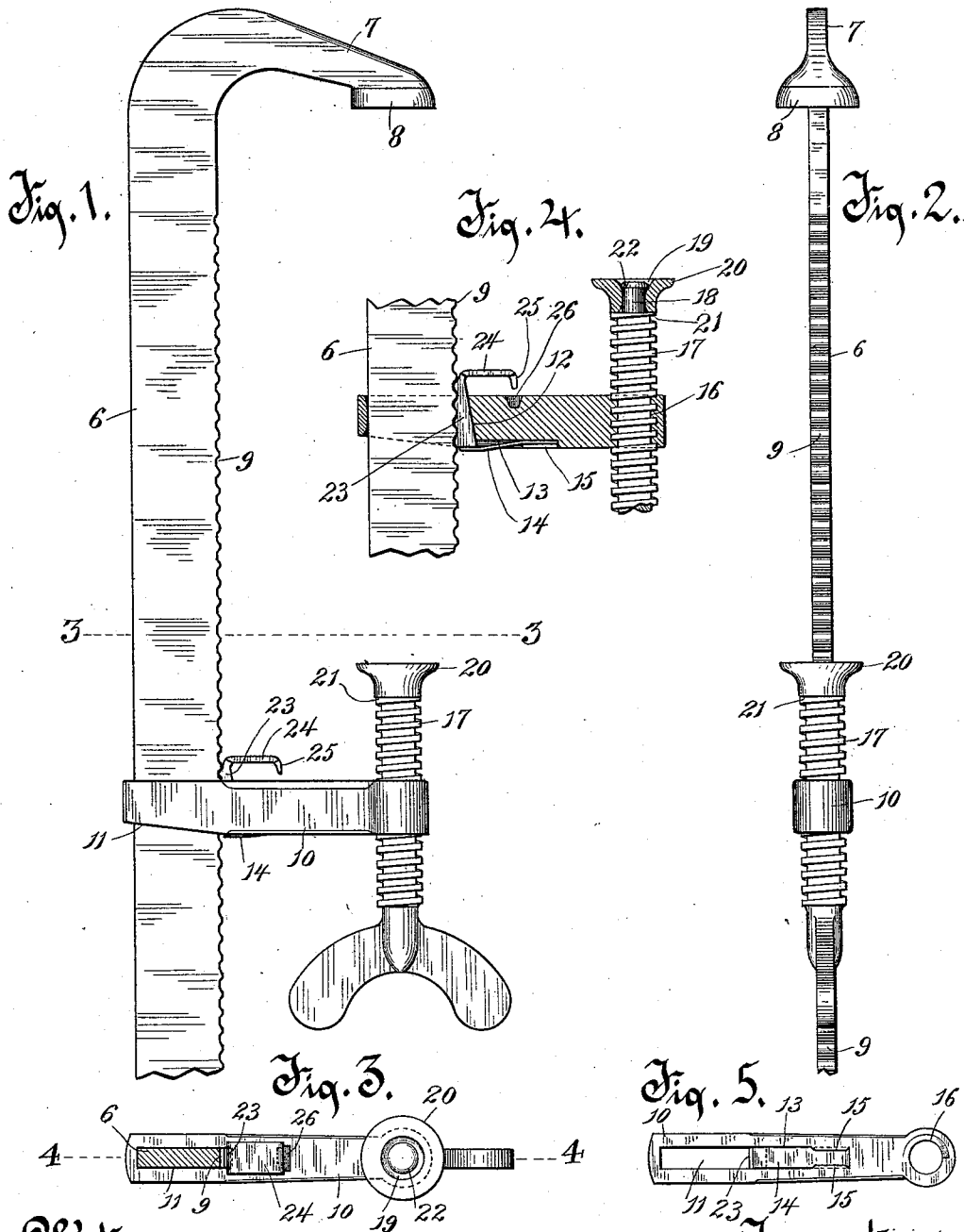


(No Model.)

N. P. MADER.  
CLAMP.

No. 540,555.

Patented June 4, 1895.



Witnesses.

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# UNITED STATES PATENT OFFICE.

NICKOLAS P. MADER, OF SULLIVAN, WISCONSIN.

## CLAMP.

**SPECIFICATION** forming part of Letters Patent No. 540,555, dated June 4, 1895.

Application filed January 10, 1895. Serial No. 534,431. (No model.)

*To all whom it may concern:*

Be it known that I, NICKOLAS P. MADER, of Sullivan, in the county of Jefferson and State of Wisconsin, have invented a new and useful Improvement in Clamps, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in clamps, having particular reference to that class of clamps in which a bar or beam is provided with a fixed or rigid clamping arm, and an adjustable arm.

The object is to provide, in a device in which simplicity of construction throughout is a prominent feature, an improved means for holding the movable arm in adjusted position.

With the above object, and others, in view, the invention consists of the devices and parts or their equivalents, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a side elevation. Fig. 2 is a front edge view. Fig. 3 is a transverse section on the line 3 3 of Fig. 1. Fig. 4 shows a fragment of the main bar or beam with the adjustable arm in proper position with relation thereto, said arm being in section to disclose the interior locking-dog, and said arm being also shown with a fragment of the screw at its outer end, the jaw of said screw being in section; and Fig. 5 is an inverted plan view of the adjustable arm removed from the bar and with the screw omitted.

Like numerals of reference denote like parts throughout the several views.

Referring to the drawings, the numeral 6 indicates a main bar or beam, provided at one end with a rigid arm 7, preferably integral therewith, said arm formed at its outer end with a clamping jaw 8. A series of teeth or serrations 9 are formed longitudinally of that edge of the bar or beam from which the arm 7 projects.

The adjustable or sliding arm is indicated by the numeral 10, said arm being provided with an elongated slot 11, which receives, and is slightly larger than, the main bar. The inner bordering wall of this slot is inclined, as indicated at 12, the inclination being outwardly, or away from the main bar. Beneath the arm 10, and extending to the slot, is a re-

cess 13, in which is secured a flat spring 14, the free end of said spring projecting beyond the recess, and extending for a short distance beneath the slot. A preferable way of securing the spring in place within the recess is to hammer over or swage the edges of the metal, as indicated at 15, 15, whereby the use of a screw, rivet, or other securing device, is made unnecessary. The end of the arm 10 is provided with a threaded aperture 16, through which works a screw 17, said screw terminating at one end in a reduced circular unthreaded portion 18. This unthreaded stem passes into a central opening 19 of a clamping jaw 20, the inner end of said clamping jaw resting upon the shoulder 21 which is formed at the junction of the stem and threaded portion of the screw. It will be noticed that the bordering wall of the central opening of the clamping jaw 20 is rounded, which provides for a certain amount of play or rocking motion to the jaw, whereby it is made capable of adapting itself to articles which are not true or level. In order to hold the jaw in place upon the stem 18, the upper end of said stem is upset to form a shoulder 22.

Fitting in the space between the serrated edge of the main bar and the inclined wall 12 of the slot 11 is a locking dog 23. This dog has that edge which is adjacent to the serrated edge of the bar, also toothed or serrated, and has its opposite edge, or that edge adjacent to the wall 12 of the slot, inclined. The upper end of the dog projects above the arm 10 and is provided with an outwardly-extending finger piece 24, which at its extremity is provided with a downwardly-extending lug 25, adapted when depressed to fit in a recess 26 therefor formed in the arm 10, whereby lateral displacement is prevented. The lower end of the dog, as clearly shown in the drawings, rests upon the projecting end of the spring 14.

In the operation of my device, if, in order to grip the article, it is necessary for the movable arm to be adjusted toward the rigid arm, all that is required is to simply push the adjustable arm toward said rigid arm, it not being essential in this instance to depress the finger piece. When pressure is thus exerted on the adjustable arm the inclined wall of

the slot rides upwardly upon the registering inclined edge of the dog and thereby loosens the wedge, making it possible to readily move the adjustable jaw. When, however, the article to be gripped is of such width as to require the adjustable arm to be moved away from the rigid arm, it is necessary to depress the finger piece with one finger, and tilt the arm 10 upward slightly by thumb pressure upon its under side, which of course likewise loosens the wedge, and permits the adjustment to be readily made. After the finger piece is released, the spring 14 of course automatically returns the dog to its normal position, and holds the registering teeth or serrations of the bar and dog in locked engagement. Of course, when the proper adjustment is secured, the screw is operated so as to bring its jaw 20 tightly against the article. While I have shown this screw in connection with the adjustable arm, it is obvious that it may be arranged in connection with the rigid arm 7, and the adjustable arm provided with a jaw secured directly thereto.

It will be seen that my device is not only exceedingly simple in construction, but is furthermore capable of being operated with the slightest possible amount of trouble, and an effective lock for the adjustable jaw provided. It will be seen that in the entire device not a single screw, rivet or other fastening means is required. It is to be further noted that the dog 23 is adjacent to the edge of the bar from which the clamping arms project. By reason of this the finger piece of the dog is located in a position to be thoroughly protected from contact with any object.

While I have shown and described the edge of the bar and the adjacent edge of the dog as formed or provided with the serrations, yet I do not wish to be understood as limiting myself thereto, as it is possible to secure an operative device without such roughened or serrated surfaces.

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

1. In a clamp, the combination, of a bar provided with a clamping jaw, an arm carrying at its outer end a jaw, and having a slot, which slot is wider than, and is adapted to

receive, the bar, the inner bordering wall of said slot being inclined, a dog fitting in the space between the edge of the bar and the inclined wall of the slot, said dog having an inclined edge registering with said inclined wall, and provided at one end with an outwardly-extending finger piece, and a spring secured to one edge of the arm, and having its free end bearing against the end of the dog opposite to the end at which the finger is located, substantially as set forth.

2. In a clamp, the combination, of a bar provided with a clamping jaw, an arm having a slot, which slot is larger than and is adapted to receive the bar, the inner bordering wall of the slot being inclined, said arm also provided upon its under side with a recess, a dog fitting in the space between the edge of the bar and the bordering wall of the slot, said dog having an inclined edge registering with said inclined wall, and a spring fitting in the under recess of the arm, the edges of the metal being upset to hold the spring in place, the free end of said spring bearing against the end of the dog, substantially as set forth.

3. In a clamp, the combination, of a bar provided with a clamping jaw, an arm carrying at its outer end a jaw, and having a slot, which slot is wider than, and is adapted to receive, the bar, the inner bordering wall of said slot being inclined, a dog fitting in the space between the edge of the bar and the inclined wall of the slot, said dog having an inclined edge registering with said inclined wall, and provided at one end with a finger piece extending above and in longitudinal alignment with the arm, the outer end of said finger piece provided with a downwardly-extending lug, adapted, when the finger piece is depressed, to fit in a recess therefor in the arm, and a spring secured to one edge of the arm, and having its opposite free end bearing against the end of the dog opposite to the end at which the finger is located, substantially as set forth.

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

NICKOLAS P. MADER.

Witnesses:

OTTO J. KERSCHENSTEINER,  
JOHN JOS. WEINHOFF.