

No. 817,513.

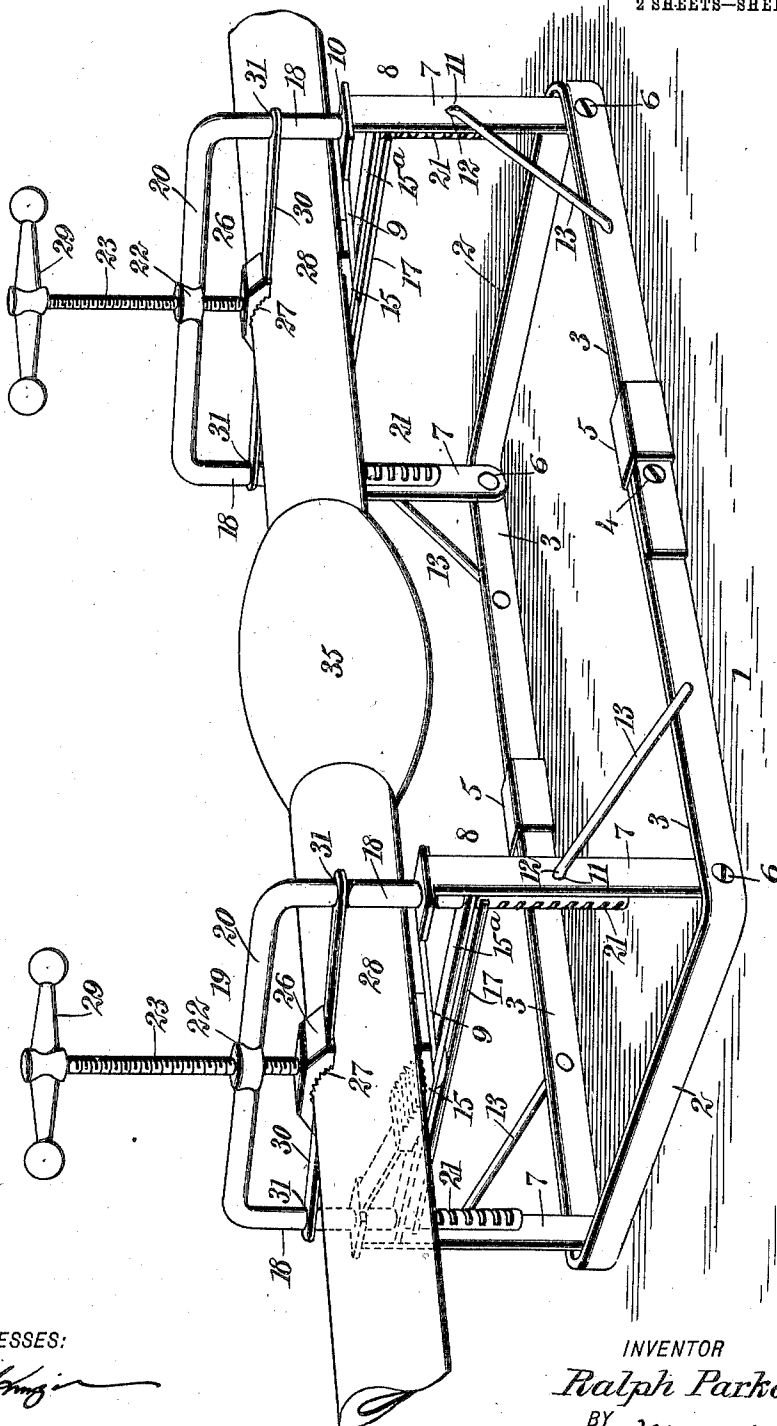
PATENTED APR. 10, 1906.

R. PARKER.
PLUMBER'S CLAMP.

APPLICATION FILED JULY 27, 1905.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES:

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INVENTOR

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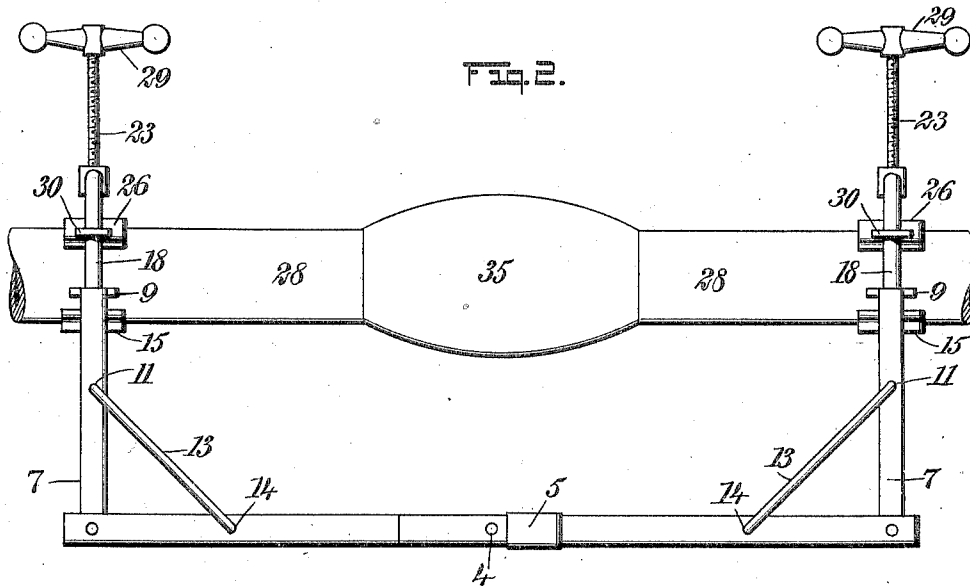


Fig. 3.

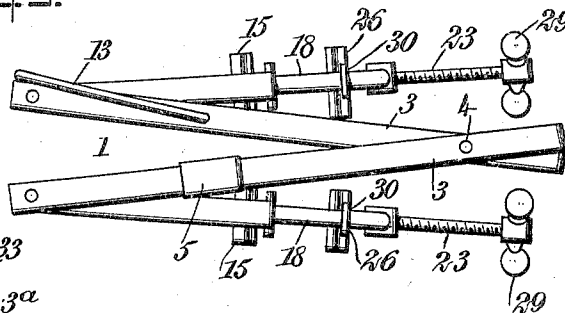


Fig. 5.

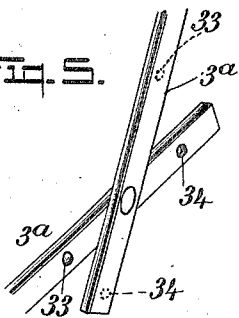
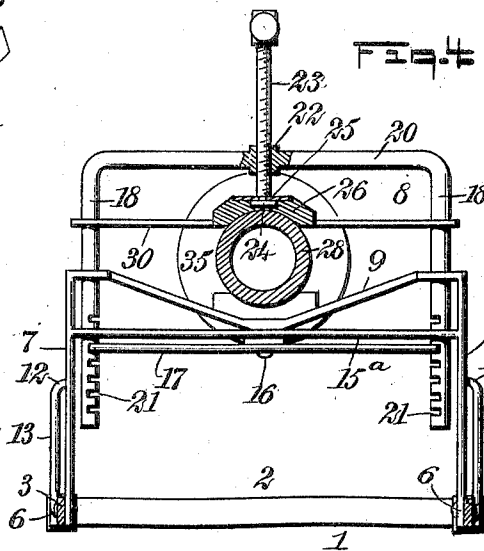


Fig. 4.



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UNITED STATES PATENT OFFICE.

RALPH PARKER, OF LAKEWOOD, NEW JERSEY.

PLUMBER'S CLAMP.

No. 817,513.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed July 27, 1905. Serial No. 271,464.

To all whom it may concern:

Be it known that I, RALPH PARKER, a citizen of the United States, and a resident of Lakewood, in the county of Ocean and State of New Jersey, have invented a new and Improved Plumber's Clamp, of which the following is a full, clear, and exact description.

This invention relates to pipe-clamps; and it consists, substantially, in the details of construction and combinations of parts herein-after more particularly described, and pointed out in the claims.

The invention has reference more especially to clamps for use by plumbers and others for supporting two lengths or sections of pipe or the like in the desired relation to each other, while uniting the adjacent ends thereof in any suitable manner, as by a plumber's wipe-joint, for instance.

One of the principal objects of the invention is to provide a clamp or structure for the purpose named which is simple in construction and comparatively cheap to manufacture, besides being collapsible to occupy but small space in storage or transportation, as well as effective and reliable in use and possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, forming a part of this specification, in which similar characters of reference designate similar parts in all the views, and in which—

Figure 1 is a view in perspective of a plumber's clamp embodying my improvements and showing the manner in which the same is employed for use in connecting together the adjacent ends of oppositely-disposed pipe lengths or sections. Fig. 2 is a side view thereof. Fig. 3 is a view representing the clamp or structure as collapsed for the purpose of storage or transportation. Fig. 4 is a transverse sectional view; and Fig. 5 is a detail view in perspective, representing a modification of the construction of one part of the structure.

Before proceeding with a more detailed description it may be stated that in the form of my improvements herein shown I employ a base-frame of special construction, the duplicate members of which are collapsible, and associated with each of which members is a clamp of special construction comprising a stationary member and a movable member, together with special means for operating

the latter to tighten a length or section of pipe in place between the jaws of the two said members. Said clamps are collapsible with reference to each other and to the duplicate members of the said base-frame, and special means are employed for rigidly securing the members of the base-frame in distended or unfolded relation to each other for operation. Special means are also employed for rigidly securing the clamps in operative relation with the said base-frame, each clamp being provided with special means for enabling quick adjustment thereof to be made in accordance with pipes of varying diameters.

While I have herein represented my improvements in a certain preferred embodiment, it will be understood, of course, that I am not limited thereto in precise detail, since immaterial changes therein may be made coming within the scope of my invention.

Reference being had to the drawings by the designating characters thereon, 1 represents in entirety the base-frame of my improved clamp, the same comprising oppositely-disposed rectangular members 2, having the parallel limbs 3 thereof pivotally joined together at 4, so as to constitute practically a continuous rectangular base-frame when the two said members thereof are in distended relation to each other, as indicated in Figs. 1 and 2. As thus joined together, the said base members 2 are capable of being collapsed or carried toward each other, as indicated in Fig. 3; but to maintain the same rigidly in their distended relation to each other any suitable means may be employed—such, for instance, as slides 5, embracing the lapping portions of the hereinbefore-mentioned parallel limbs 3 of said members and slidable thereon to secure the members in said rigid relations.

Pivoted to the inner sides of the parallel limbs 3 of each base member 2, near the outer ends thereof, at 6 are the lower ends of normally vertical parallel members 7 of a stationary clamp member, (indicated in entirety at 8,) the said members 7 being preferably rigidly connected at the upper ends thereof by means of a normally dishd or inwardly-depressed cross-piece 9, having openings 10 therein at or near the ends thereof. Each member 7 of the said clamp member 8 is provided with a hole or opening at 11, within which is received the hooked end 12 of a brace 13, pivoted at 14 to the corre-

sponding limb 3 of the base member 2, with which the said clamp member is associated (see Figs. 1 and 2) to thus rigidly maintain the clamp member in vertical position with reference to the base-frame in the use or operation of the clamp. The said cross-piece 9 of each of the said stationary clamp members 8 is provided centrally thereof with a curved inner serrated jaw 15, and the vertical parallel members 7 of the clamp member are connected by a transverse brace 15^a, having openings at or near the ends thereof corresponding to the openings 10 in the said cross-piece 9. Centrally pivoted to the under side of each of said braces 15^a at 16 is a locking-plate 17, and working through each pair of said openings referred to is one of the parallel legs 18 of a vertically-movable clamp member 19, the said parallel legs 18 of which are connected at their outer ends by a cross-piece 20. The parallel legs 18 of each movable clamp member 19 are provided on the inner sides thereof for a suitable distance from their inner ends with corresponding notches 21, opposite ones of which are entered by the ends of said locking-plate 17, by which to secure the said vertically-movable clamp member in different positions with respect to the jaw 15 of cross-piece 9 of the corresponding stationary clamp member 8. The cross-piece 20 of each movable clamp member 19 is provided with a centrally-disposed bearing 22, in which works a screw 23, the inner end of which is operatively engaged with a nut 24, seated in a recess therefor beneath a plate 25, (see Fig. 4,) secured to the upper side of a movable jaw 26, curved and serrated on its inner face, as shown at 27, to engage with the upper surface of a length of pipe 28, while the corresponding face of the stationary jaw 15 similarly engages the under surface thereof. The upper end of each of said screws 23 is provided with a handle 29, by which the same may be manipulated to adjust the movable jaw 26 relatively to the stationary jaw 15 in conformity with pipe lengths of varying diameters, and it will be observed that said movable jaw is provided with a guide-plate 30 therefor, having openings 31 at or near the ends thereof to render the same movable upon the parallel vertical legs 18 of the movable clamp member.

As thus constructed it will be seen that the parts of the structure may be readily collapsed, as indicated in Fig. 3, by which to be reduced to small compass, and consequently occupy but small space either in storage or transportation of the structure, and it will also be seen that my improved device possesses many advantages for the purposes for which it is intended. To enable the structure to be thus collapsed, it is simply necessary to move the slides 5 along one or the other set of parallel limbs 3 of the base members 2 and then to disengage the hooked ends

12 of each set of braces 13, by which the stationary clamp members 8 are held in operative position. When this is done, it is apparent that the said stationary clamp members may be readily folded toward each other, whereupon the base members 2 of the structure may be similarly folded together from the under side of the base-frame. By virtue of the presence of the slides 5 upon the sets of parallel limbs of the base members 2 the several parts or elements of the structure are not permitted to be collapsed sufficiently close as is desirable under some circumstances, and to overcome this I sometimes dispense with the use of said clamps, and in such cases I prefer to construct the frame members 2 of spring metal and to provide the inner surfaces of the inner extremities of the parallel limbs 3^a to each frame member with corresponding projections 33 for engaging in openings 34 therefor in the other set. (See Fig. 5.) When this latter construction is resorted to, it is simply necessary to bring the parallel limbs 3 of the two sets of frame members 2 into parallelism with each other to cause the said projections 33 to spring into the openings 34, and then whenever it is desired to collapse the said frame members 2 it is simply necessary to exert sufficient force upon the same in a downward direction, by which to cause the projections 33 to spring out of said openings, all of which, it is thought, will be fully apparent.

As shown in Figs. 1 and 2, a length or section of pipe 28 is seated upon the stationary jaw 15 of each cross-piece 9, it being understood that the corresponding movable jaw 26 has been previously adjusted to the desired position vertically by moving the legs of the movable clamp member to which it belongs within the hereinbefore-mentioned elements which support this movable clamp member, the ends of the locking-plate being afterward turned to enter corresponding notches in said legs, thus to lock the said movable clamp member in position. The jaw 26 is now adjusted by turning the screw 23 until the length or section of pipe is firmly gripped between the two said jaws, and thus it will be seen that the two lengths or sections of pipe will be firmly held in alinement with each other, by which to effect the joinder of their adjacent ends in any suitable way, as by means of an ordinary plumber's wipe-joint, (indicated at 35 in Figs. 1 and 2.) After the joinder of the lengths or sections of pipe has been effected the jaws 26 may be loosened by turning the screws 23 in a reverse direction, whereupon by disengaging the locking-plates 17 the movable clamp members and their appurtenances may be removed, thus enabling the joined pipe lengths to be lifted out, as will be apparent.

The device is exceedingly advantageous and enables the ends of pipe lengths or sec-

tions to be joined together in perfect alignment, since one of the pipe lengths or sections cannot possibly be displaced with reference to the other during the manipulations of the plumber or other operative making the joint.

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

10 1. A structure of the character described, comprising a base-frame, clamps mounted thereon for securing in position two lengths of pipe, while joining together adjacent ends of the latter, said base-frame embodying 15 members having sets of limbs movably joined together, and means for securing the limbs of the two sets in parallel relation to each other.

20 2. A structure of the character described, comprising a base-frame, clamps mounted thereon, for securing in position two lengths of pipe, while joining together adjacent ends of the latter, and embodying a stationary member having a cross-piece provided with a jaw, and having openings therein, a movable

member having legs working in said openings, and provided with corresponding notches, a cross-brace movable on said legs, and also supporting a jaw; a screw for operating the latter jaw, and a locking-plate pivoted to the cross-piece, the ends of which are 30 received in opposite ones of the notches.

3. A structure of the character described, comprising a base-frame constructed of collapsible members, pipe-clamps collapsible with reference to each other, and directly collapsible with reference to said base-frame, 35 and braces for securing the clamps in vertical relation to the base-frame, in the parallel relation of said collapsible members to each other.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 40

RALPH PARKER.

Witnesses:

WALTER R. BYNNER,
HOWARD APPLGATE.