(No Model.)

G. B. DAVIS.

CLAMP.

No. 544,292. Patented Aug. 13, 1895.

Fig. 1

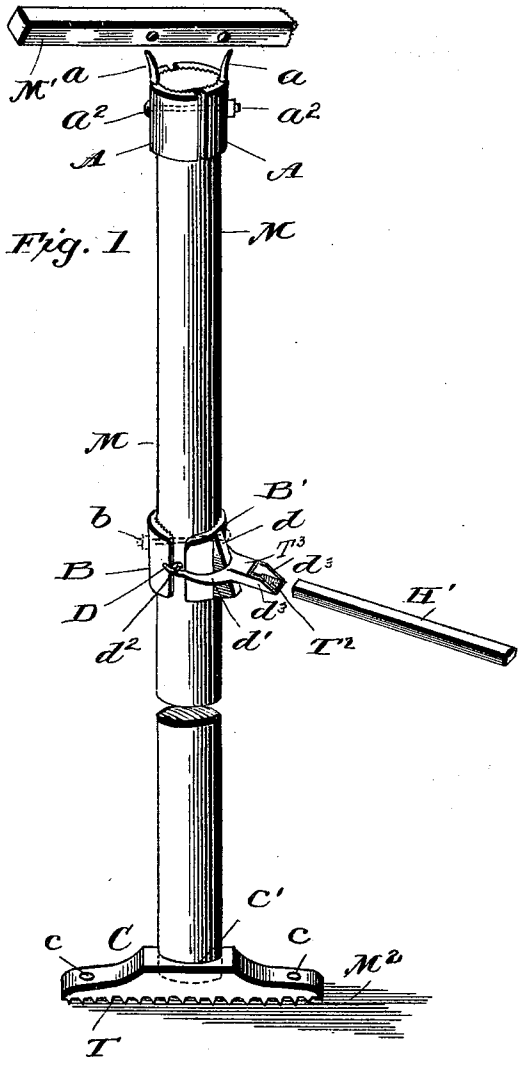
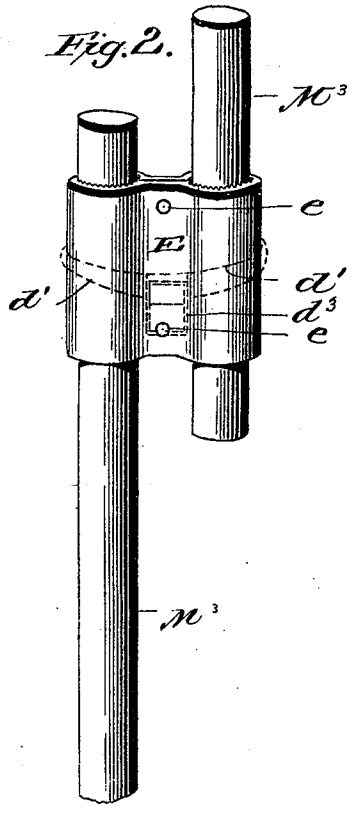


Fig. 2.



Witnesses:
L. C. Hills.
J. H. Jochum Jr.

Inventor:
George B. Davis,
by Collamer & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE B. DAVIS, OF DETROIT, MICHIGAN.

CLAMP.

SPECIFICATION forming part of Letters Patent No. 544,292, dated August 13, 1895.

Application filed July 14, 1894. Serial No. 517,579. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. DAVIS, a citizen of the United States, and a resident of Detroit, Wayne county, State of Michigan, have invented certain new and useful Improvements in Clamps; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to carpentry, and more especially to clamps such as are used for connecting two bars or members of wood or other material, as more fully set forth below.

This improved clamp is to be applied in the building of abutments, crib or pile work in the water or on land, ship-building, scaffold, work, or any kind of construction of wood-iron, metal, stone, cement, cloth, paper, or other material; and my invention consists in the details of construction described below, and as illustrated in the drawings, wherein—

Figure 1 represents a column in perspective, and this view also illustrates in perspective one form of my clamp applied to the center of the column, and shows a base-piece as forming the base of the column. Fig. 2 is a perspective detail of a double form of my clamp.

The various parts of this improved clamp are preferably of metal or other similar and suitable material sufficiently strong for the uses to which it is to be put, and yet sufficiently light to avoid the whole being cumbersome, heavy, or bungling.

The letter M designates a column or other member extending from the ceiling M′ to the flooring M^2, or extending horizontally between these two members.

At the top of Fig. 1 are two parts or halves A A of a shape to surround the column M, which is here shown as round. At their upper ends these two parts A A have outwardly-projecting hooks *a* taking upward through the body of the cap member M′. In applying this device the hooks are passed through said member, and the two parts A A are brought together around the column M, which forces said hooks apart, after which a bolt or bolts a^2 are passed through the parts and the column, as shown. Although not here illustrated, the inner faces of the parts A A are preferably provided with teeth, as described below.

At the lower part of Fig. 1 C is a base-piece having teeth T on its lower face, which embed the floor M^2 by the weight of the superimposed structure, or may be caused to embed the floor by placing bolts or screws through the holes *c* and drawing the base down on the floor. In the upper face of this base is a cavity *c*′, of a proper size and shape to receive the column M.

It will be understood that the piece C could be used at the upper or lower or both ends of the column, or the device composed of the parts A could be used in any of these positions. However, the constructions above described for the upper and lower ends of the column M form no essential parts of the clamp described below, but are shown as illustrating merely one form of connection which may be used at these extremities.

Near the center of Fig. 1 I have shown the preferred form of my clamp, which is portable, and which is intended to be applied to a column, as M, to form a support for a projecting arm, (not shown), as when it is desired to build a staging alongside such column. This clamp consists of two parts B B′, which also have teeth on their inner faces embedding the column, and these parts may be held to the column by a bolt or bolts *b*, as seen in dotted lines, or otherwise; but the means I preferably employ for drawing these parts together are as follows: D designates hooks projecting from the part B, and *d* is a wedge or block formed integral with or removable from the part B′. *d*′ is a fork having hooks d^2 at its extremities adapted to take into hooks D on the part B, while the smooth center of the fork engages the wedge *d*; and d^3 is a socket on the fork for receiving a crow-bar or other handle, so as to properly move the fork. This socket is preferably formed with an upper plate T^3, connecting the upright sides of the socket proper and near the fork *d*′, and a lower plate T^2, connecting the lower edges of said sides at their outer ends and having its inner edge quite remote from the fork, both said plates T^2 and T^3 having teeth on their inner faces, as shown. When the handle H′ is inserted in this socket, its extremity passes

under the plate T^3, while its body rests over the plate T^2, and by bearing down on the outer end of the handle to move the fork down the wedge the teeth on the two plates will be embedded in the handle. The fact that the inner edge of the lower plate T^2 is more remote from the fork than the outer edge of the upper plate T^3 permits the use of a handle which is even larger than the height of the side pieces d^3. However, the use of this specific form of socket is optional, and an ordinary socket may be here employed, if desired. In fact, I believe an ordinary socket would be preferable if the handle is to be of hard material or is intended to be removed. After the two parts B B′ are assembled the bolts *b* may or may not be used, and the fork itself may or may not be removed entire.

In Fig. 2 the two members M^3 are not in alignment, and the form of my clamp E, which connects them, is shaped to correspond. It is formed of two parts having complementary grooves near their outer edges, so as to provide two sockets for holding the members. These parts can be held together by bolts, as indicated at *e*, and which would pass through the parts where they touch each other between the members, but they will be drawn together by the fork and co-operating mechanism of Fig. 1, as indicated in dotted lines in Fig. 2.

It will be seen that in its preferred form and use each part is made of metal and cast with teeth T, so as to embed a wooden member against which it is drawn and held by bolts, screws, or other means. At Fig. 1 I show a clamp removably engaging an upright member, so as to support scaffolding, staging, or any temporary framework, and in Fig. 2 the parts of the clamp have double cavities for connecting members which are not in alignment, but which stand approximately parallel.

It will be understood that there are numberless other uses to which one or both parts of this clamp may be put; but I believe I have illustrated and described enough to give a clear conception of my idea.

What is claimed as new is—

1. In a clamp for use as herein described, the combination with two parts, and hooks at the edges of one part; of a fork adapted to span the other part and having hooked ends removably engaging said hooks, a wedge under the fork, a socket at the outer end of the fork, and a handle removably inserted in said socket, as and for the purpose specified.

2. In a clamp for use as herein described, the combination with two parts, and hooks at the edges of one part; of a fork adapted to span the other part and having hooked ends removably engaging said hooks, a wedge between the latter part and the fork, and a socket at the outer end of the fork consisting of upright side pieces connected by top and bottom plates having teeth on their inner faces, the upper plate standing near the fork and the lower plate standing remote from the fork with an opening between its inner edge and the fork, as and for the purpose specified.

3. In a clamp for use as herein described, the combination with two parts, and a fork for drawing them together substantially in the manner set forth; of a socket at the outer end of the fork consisting of upright side pieces connected by top and bottom plates having teeth on their inner faces, the upper plate standing near the fork and the lower plate standing remote from the fork with an opening between its inner edge and the fork, and a rectangular handle removably inserted in said socket, as and for the purpose specified.

In testimony whereof I have hereunto subscribed my signature on this the 19th day of June, A. D. 1894.

GEORGE B. DAVIS.

Witnesses:
J. M. JONES,
A. M. JONES.