

No. 675,866.

Patented June 4, 1901.

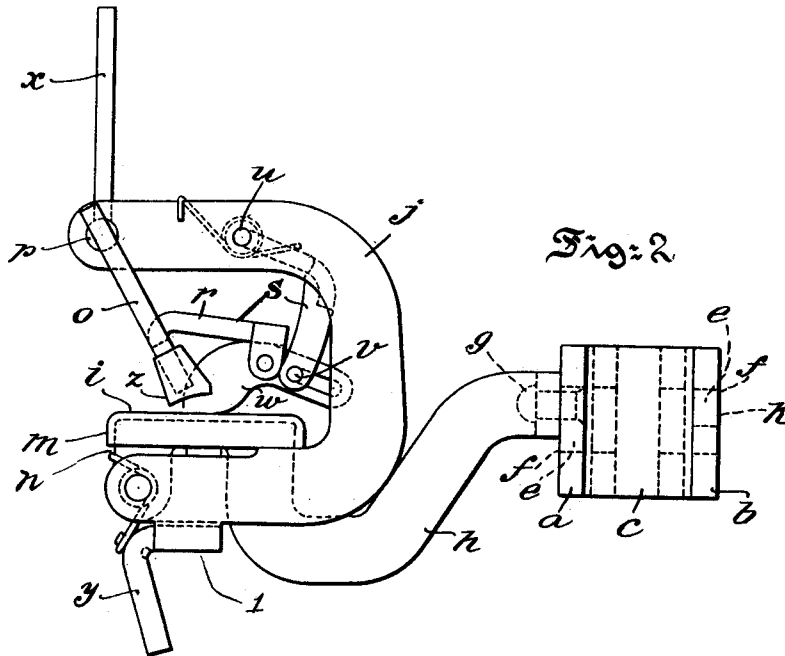
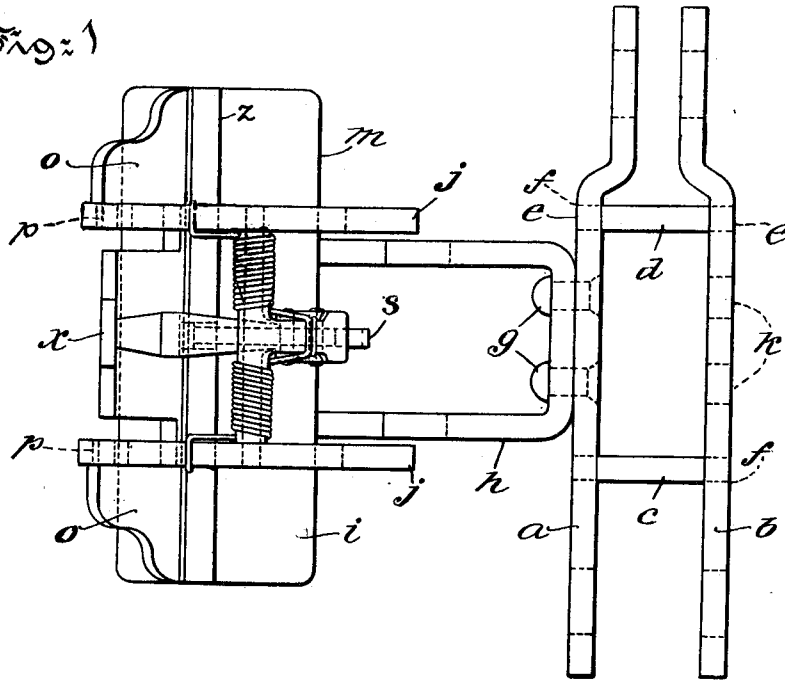
C. L. WEICHEL & C. J. GADD.
CLAMP FOR TEXTILE MACHINES.

(No Model.)

(Application filed Mar. 8, 1900.)

3 Sheets—Sheet 1.

Fig: 1



Witnesses:
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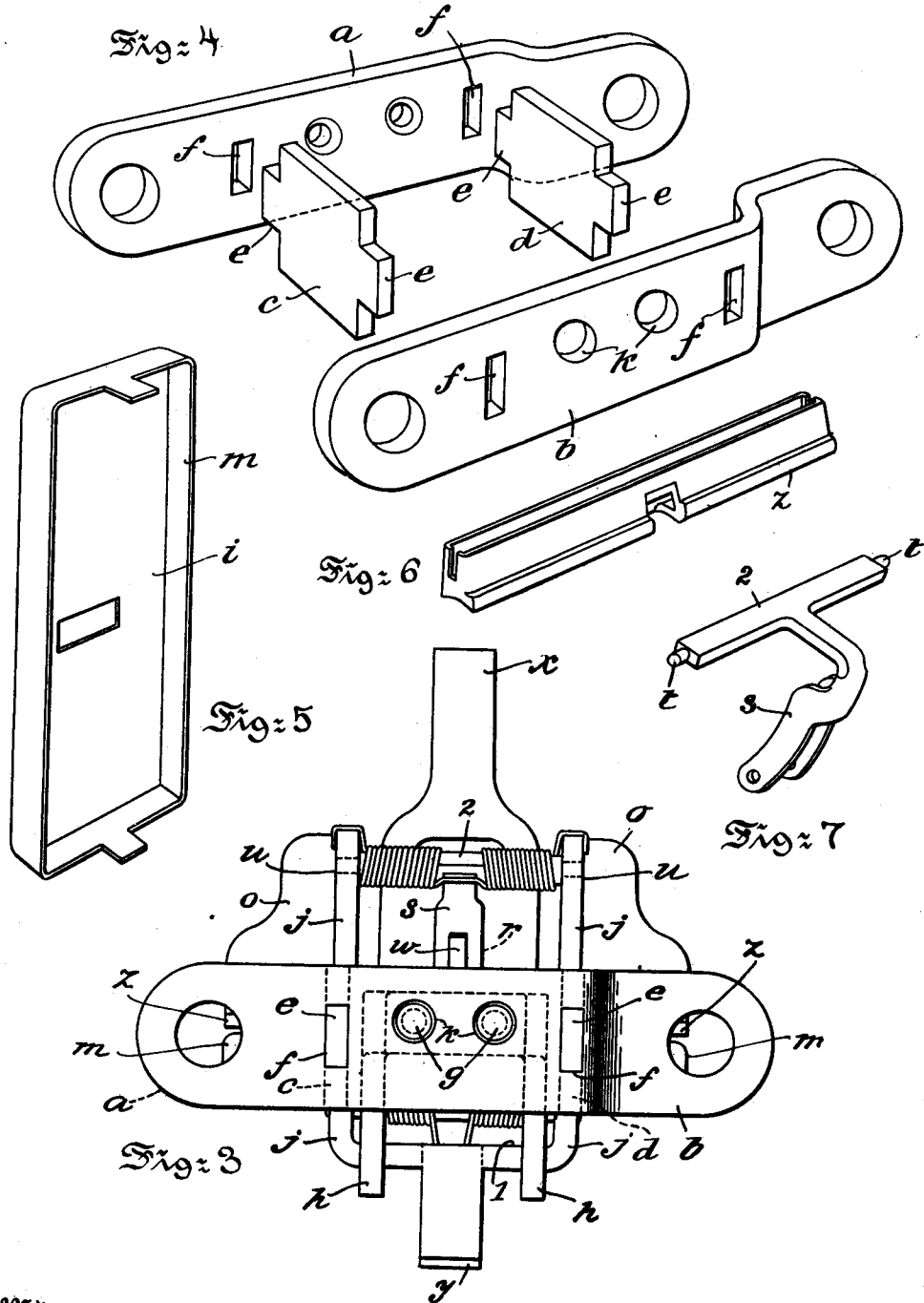
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3 Sheets—Sheet 2.



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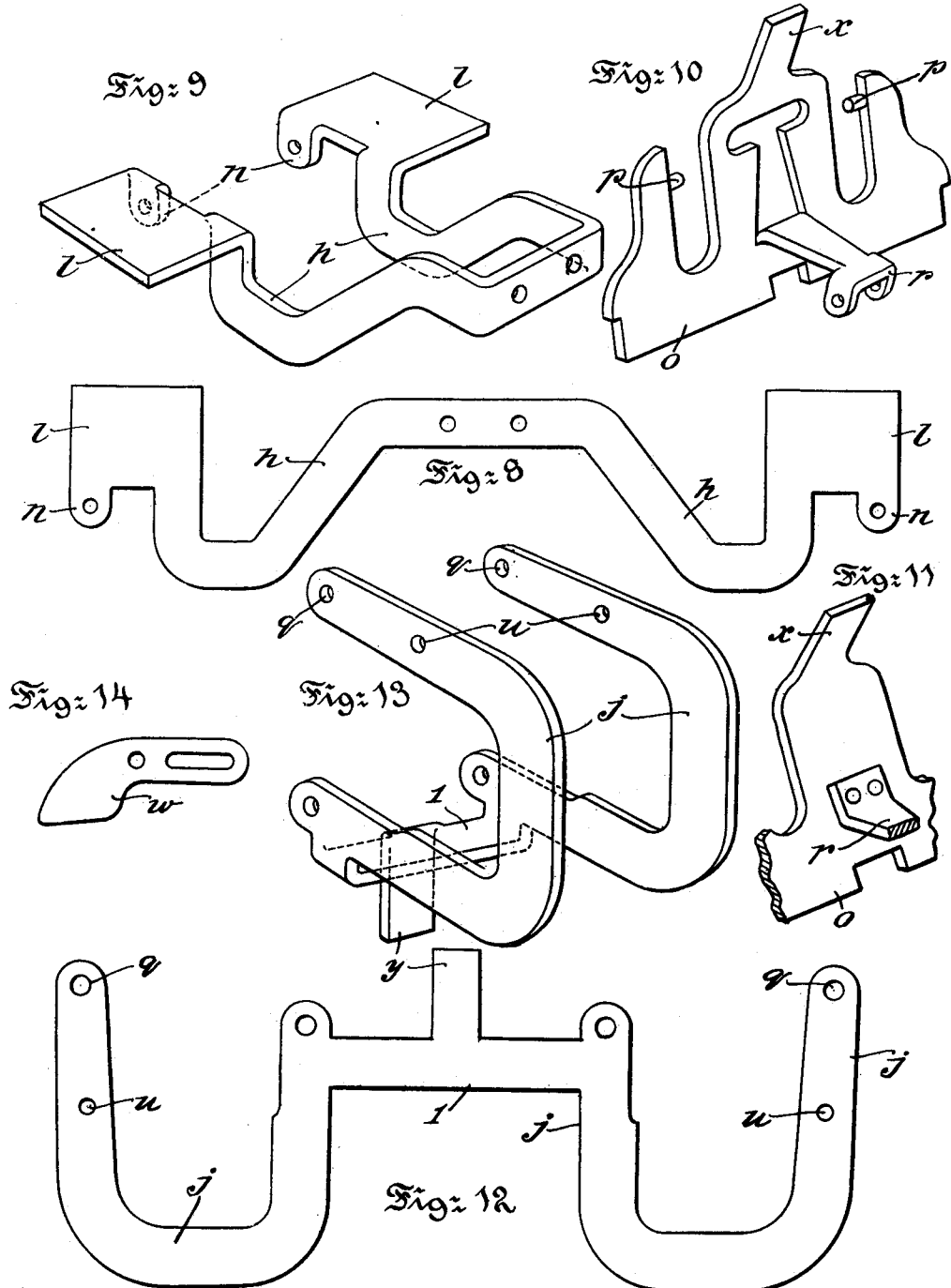
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

CHARLES L. WEICHELT AND CHARLES J. GADD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO PHILADELPHIA TEXTILE SPECIALTY MACHINE COMPANY, OF SAME PLACE.

CLAMP FOR TEXTILE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 675,866, dated June 4, 1901.

Application filed March 8, 1900. Serial No. 7,788. (No model.)

To all whom it may concern:

Be it known that we, CHARLES L. WEICHELT, a citizen of the United States, and CHARLES J. GADD, a subject of the Queen of Great Britain, and residents of the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in the Construction of Clamps for Textile-Machines, of which the following is a specification.

Our invention relates to improvements in the construction of clamps for textile-machines; and the object of our invention is to furnish a clamp which will be lighter, stronger, and less expensive than any clamp heretofore made. To this end we have devised a clamp which, together with its carrying-chain, may be completely formed and finished in dies and which will not require any handwork other than that required to assemble its several parts, all of which are perfectly interchangeable. All clamps of this description have heretofore been made of cast or malleable iron, and milling or shaping has been required to bring them to an approximately uniform size, and as the material is never of a uniform strength throughout it is apt during the machining to be bent in its weakest part or parts. Again, as all castings vary more or less in size the jigs in which a great part of the work has to be done have to be made large enough to accommodate the largest of them. Therefore in the smaller castings there is a chance for error, which frequently leads to much trouble.

In the accompanying drawings, forming part of this specification, and in which similar characters of reference indicate similar parts throughout the several views, Figure 1 is a plan of clamp constructed upon our improved principle; Fig. 2, a side elevation of Fig. 1; Fig. 3, a rear elevation of Fig. 1; Fig. 4, a perspective view of the several parts of one link of the carrying-chain; Fig. 5, a perspective view showing the under part of the brass table upon which the fabric rests; Fig. 6, a perspective view of the brass footpiece attached to the lower end of the movable jaw; Fig. 7, a perspective view of the arm, to the lower end of which the trigger is secured by

a sliding connection; Fig. 8, a plan of blank from which the table-carrying arm is formed; Fig. 9, a perspective view of the table-carrying arm after having been bent to shape; Fig. 10, a perspective view of movable jaw after having been struck to shape; Fig. 11, a similar view of part of same, showing the rearwardly-extending arm secured by means of rivets or screws; Fig. 12, a plan of blank from which the arms which carry the movable jaw, &c., are struck; Fig. 13, a perspective view of Fig. 12 after having been struck to its final shape, and Fig. 14 a plan of trigger.

Our clamp is entirely formed by dies, blanks being first cut from sheet metal of suitable thickness and these blanks being struck up by other dies to the final forms desired. In the first place, the links of the carrying-chains are formed, exclusive of the coupling-pins, of four pieces *a b c d*, Fig. 4, which are cut out and formed by dies into the shapes shown. The end pieces *c d* are furnished with tangs *e*, which are adapted to enter corresponding slots *f* in the side pieces *a b* and to be secured by riveting. Secured to the link by means of rivets *g*, Figs. 1 and 2, is an arm *h*, Figs. 1, 2, 8, and 9, which carries the stationary jaw *i*, Figs. 1, 2, and 5, and the U-shaped arm *j*, Figs. 1, 2, 3, 12, and 13. The blank from which the arm *h* is formed is shown in Fig. 8, the arm itself after having been completed in dies in Fig. 9.

k, Fig. 4, represents holes in the side *b* of the link to permit the passage of a tool to clench the rivets *g* to the side *a*. The arm *h* is U-shaped, its outer ends being bent over to form tables *l*, which carry the brass table *i*, Figs. 1, 2, and 5, which does not rust, and which therefore will not mark or stain the fabric being operated upon by the clamp. The table *i* is furnished with a flange *m*, which when in place on arm *h* engages tightly the outer sides of tables *l* on this arm, being held thereon by friction. The outer ends of arm *h* are furnished with ears *n*, to which are pivotally attached the lower ends of the U-shaped arms *j*. These arms are formed from a single piece of metal struck out and bent up, as shown, and connected by a connecting-bar *l*. To their upper outer ends the mov-

able jaw *o*, Figs. 1, 2, 3, and 10, is secured. The jaw *o* is struck from a single piece of steel and is furnished with pivots *p*, which enter holes *q*, punched in the ends of arms *j*.

5 *r* is an arm formed integrally with jaw *o* or secured thereto by rivets, as shown in Fig. 11, and *s*, Figs. 1, 2, 3, and 7, a link punched from a single piece of metal and furnished integrally with pivots *l*, carried on the ends
10 of a cross-arm 2, adapted to be received and held in holes *u*, punched in arms *j*. The lower end of link *s*, which is bifurcated, as shown, is secured by a pivot *v* to a slot in a trigger *w*, which is punched from a flat piece
15 of metal and which is pivotally carried on the outer end of arm *r*.

x is an operating-arm formed integrally with jaw *o*, and *y* an operating-arm formed integrally with U-shaped arm *j*.

20 *z*, Figs. 1, 2, and 6, is a brass foot struck up in dies and adapted to be held on the lower end of jaw *o*. This is used in order to keep the steel from contact with the fabric.

The form of clamp herein shown was patented on February 7, 1899, by Charles L. Weichelt, No. 619,031, to which patent reference is made for the operation of the device.

We do not desire to confine ourselves solely to the form of clamp shown in the drawings,
30 as all other forms of similar clamps may be eco-

nomic and satisfactorily constructed in a similar manner.

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

In a clamp for tentering-machines, in combination, a U-shaped carrying-arm the inner part of which is adapted to be secured to a link and the outward ends of which are bent outwardly forming tables *l* the inner outer
40 corners of which are furnished with downwardly-projecting ears *n*, said link, a non-corrosive top carried by said tables, U-shaped arms *j*, united at their lower ends by a bar 1, the lower forward ends of which are adapted
45 to be pivotally secured to ears *n*, a movable jaw *o*, furnished with an arm *r* and integral pivots *p*, adapted to be carried by the upper ends of arms *j*, a trigger *w* pivotally carried
50 by said arm *r*, and a link the upper end of which carries integrally a cross-arm 2 adapted to be pivotally carried by arm *j* and the lower end of which is adapted to be secured by a sliding connection to said trigger *w*.

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Witnesses:

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