

(No Model.)

D. FOSTER.
MITER GRAMP.

No. 454,039.

Patented June 16, 1891.

Fig. 1.

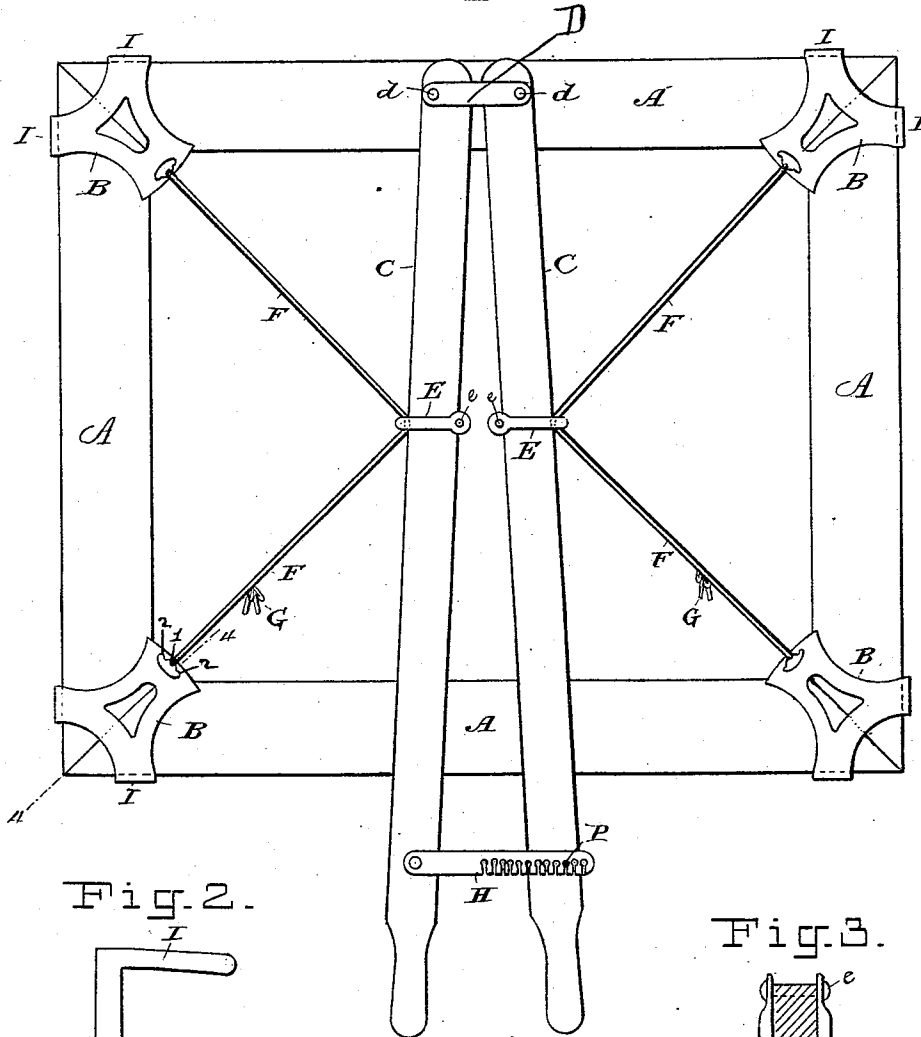


Fig. 2.

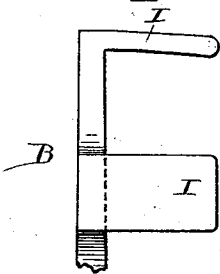


Fig. 3.

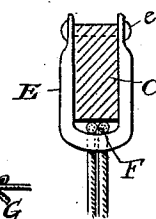
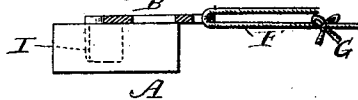


Fig. 4.



WITNESSES:

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DAVID FOSTER, OF ONEHUNGA, NEAR AUCKLAND, NEW ZEALAND.

MITER-CRAMP.

SPECIFICATION forming part of Letters Patent No. 454,039, dated June 16, 1891.

Application filed March 18, 1890. Serial No. 344,281. (No model.) Patented in New Zealand November 7, 1889, No. 3,862.

To all whom it may concern:

Be it known that I, DAVID FOSTER, a subject of the Queen of Great Britain, residing at Onehunga, near the city of Auckland, in the British Colony of New Zealand, have invented new and useful Improvements in Miter-Cramps, of which the following is a full, clear, and exact specification.

My invention relates to miter-cramps for which a warrant has been signed for grant of Letters Patent in New Zealand on the 7th day of November, 1889, number of patent 3,862. The above-mentioned cramp is for putting picture-frames and other frames together, cramping the four corners or miters at one operation.

Referring to the accompanying drawings, Figure 1 represents a miter-cramp embodying my invention as applied to a frame. Fig. 2 is a view of a portion of one of the clamps B. Fig. 3 is a detail view showing the staples or hooks E fastened to the lever C. Fig. 4 is a sectional view on line 4 4, Fig. 1.

In said drawings, A A A A represent the four sides of a frame of any size being cramped together.

B B B B represent the four corner-clamps, as shown, which may be made of cast or wrought iron or other material. These clamps are shaped in any desired manner, so as to allow for nailing or bradding corners of frame when cramped up—as, for instance, by being provided with lugs I, which engage and cover a small portion only of the frame. The object in having the three half-holes or notches 1 2 3 in the corner-clamps, as shown, is for cramping a very oblong frame, as, say, three feet six inches by one foot three inches, when it would be necessary to take the cord to one of the outside holes 2 in corner-clamp; but for all ordinary frames the cord would work from the center hole of the clamp.

The lugs marked I are made three thirty-seconds of an inch to one inch out of square, so as to counteract the slight tendency of clamps to close the side of the frame on which the clamps are placed first—that is to say, the angle between the lug and the main portion of the clamp is made slightly acute, Fig. 2. This bevel will be sufficient to draw miters squarely together.

C C represent the two levers, which may be made of wood or iron of any desired length or thickness, by which levers the frame is drawn together, as shown.

D represents the pieces of hoop iron or straps, one on top and one underneath the levers, by which the levers are connected at top end by means of a rivet or pin *d* passing through each end of the pieces of iron or straps and through the levers, as shown.

E E represent the staples or hoops, as shown at section E, fastened by rivet-pin or screw *e* to levers, and through which the cords or other tension rods or chain passes.

F F represent the strong cords passing through the holes or slot in corner-clamps and through staples, as shown, thus connecting the whole cramp, as shown.

G G represents a slip-knot in cord and loose end by which the cramp can be adjusted to take in any size of frame, large or small.

H represents a piece of hoop-iron punched or slotted, as shown, fixed by ordinary screw or rivet to one of the levers and passed over screw or stud P in other lever when the proper pressure is got on the levers, thus holding the levers in position when the frame is cramped up.

What I claim is—

1. A miter-cramp provided with the corner-clamps B, cords F, staples or eyes E, and two operating-levers adapted to be connected together at the bottom by means of a pin on one of said levers and a rod on the other having slots which engage said pin, substantially as set forth.

2. In a miter-cramp, the combination, with the clamps, each provided with three half-holes, of two operating-levers, each provided with a staple, and a cord attached to and passing from one of said clamps through an eye in said staple and thence to another clamp, substantially as set forth.

3. In a miter-cramp, the combination, with the corner-clamps and cords connecting therewith, of a pair of levers C C, hinged together at one end and oscillating in planes parallel with the frame, eyes or loops E, carried by the levers and inclosing the cords, and means for confining together the other ends of the levers, substantially as specified.

In witness whereof I have hereunto set my hand in presence of two subscribing witnesses.

DAVID FOSTER.

Witnesses:

SIDNEY JOHN BROOKFIELD,
ULERIC MORRIS PRESTON BROOKFIELD.