JOHN CHARLES FORBES.

Improvement in Studio Easels.

No. 121,240. Patented Nov. 28, 1871.

Fig 2.

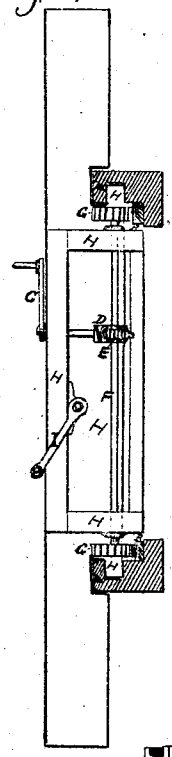
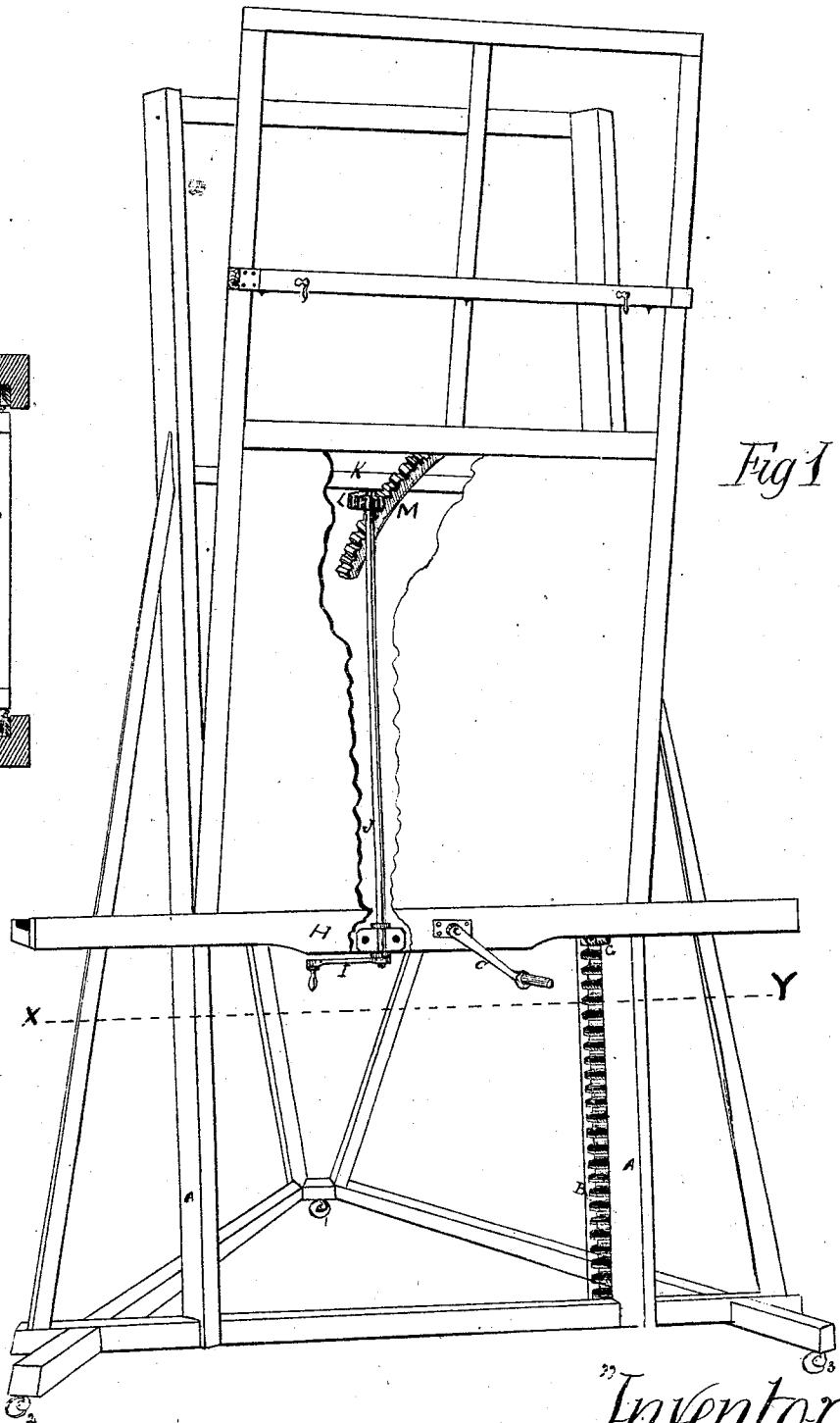


Fig 1



Witnesses.

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A.M. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

JOHN CHARLES FORBES, OF TORONTO, CANADA.

IMPROVEMENT IN STUDIO EASELS.

Specification forming part of Letters Patent No. 121,240, dated November 28, 1871.

To all whom it may concern:

Be it known that I, JOHN CHARLES FORBES, of the city of Toronto, in the county of York, Province of Ontario and Dominion of Canada, artist, have invented certain Improvements in Studio Easels, of which the following is a specification:

My invention relates to an improved adjustable studio easel, so arranged that the artist may alter its inclination or height without moving from his seat; and consists of two crank-handles, one of which is connected to and actuates, through a worm, pinion, and cross-shaft, two spur-wheels which gear into vertical racks, and by which the canvas-holder may be raised or lowered, as hereafter more fully described. The other crank-handle being connected through a vertical spindle and pinion gearing into a circular rack attached to the back of the canvas-holder, for the purpose of canting the same, as hereafter more fully described.

Figure 1, perspective view of easel; Fig. 2, bottom view through *x y*.

Fig. 1 explains the general shape and construction of the easel, the vertical portion of it being supported on a triangular base resting on three casters, 1 2 3, as shown. On the inside of the uprights A I fix the vertical racks B, the said uprights being shaped for that purpose. Upon the spindle of the crank-handle C there is a worm-screw, D, which gears into the pinion E; this pinion is keyed to the cross-spindle F. The spur-wheels G are keyed to the same shaft and mesh into the racks B. The cross-spindle F works in journals attached to or forming part of the lower sliding piece H, to which the canvas-holder is hinged. This sliding piece H is checked into vertical slots in the uprights A. This check prevents it, H, getting away from the said uprights A; but the only support it has are the spur-wheels G upon the cross-shaft F gearing into the racks B. It follows then, that, by turning the crank-handle C the canvas-holder, being attached to the sliding piece H, can be raised or lowered, as desired; and the combination of the worm D and pinion E prevents the cross-shaft F revolving unless propelled by the crank-handle C; consequently the sliding piece H will remain in any position it has been placed. The crank-handle I is keyed to or forms part of the vertical spindle J; the upper end of this spindle works in a journal upon the upper sliding piece K. This sliding piece is fitted in like manner and works in the same vertical slot, as does the lower sliding piece H; and in fact the two are connected and work together. The pinion L is keyed to the vertical spindle J and gears into the circular rack M. This rack is hinged or otherwise fastened to the back of the canvas-holder, and as the canvas-holder is hinged to the lower sliding piece H it will be understood, by reference to Fig. 1, that by turning the crank-handle I the said canvas-holder is thrown forward or carried backward, as described. If it is preferred, the crank-handle I may be made to work on the face of the lower sliding piece H like the other crank-handle; but, of course, this would necessitate a small spindle and worm-screw, which would make it somewhat more complicated.

What I claim as my invention is—

1. The combination of the crank-handle C, worm-screws D, pinion E, cross-spindle F, spur-wheel G, vertical racks B, for the purpose of raising and lowering the canvas-holder, substantially as and for the purpose specified.

2. The combination of the crank-handle I, vertical spindle J, pinion L, rack M, for the purpose of altering the inclination of the canvas-holder, substantially as specified.

City of Toronto, 23d day of September, 1871.

JOHN CHARLES FORBES.

Witnesses:

FRED. K. CLARK,

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