

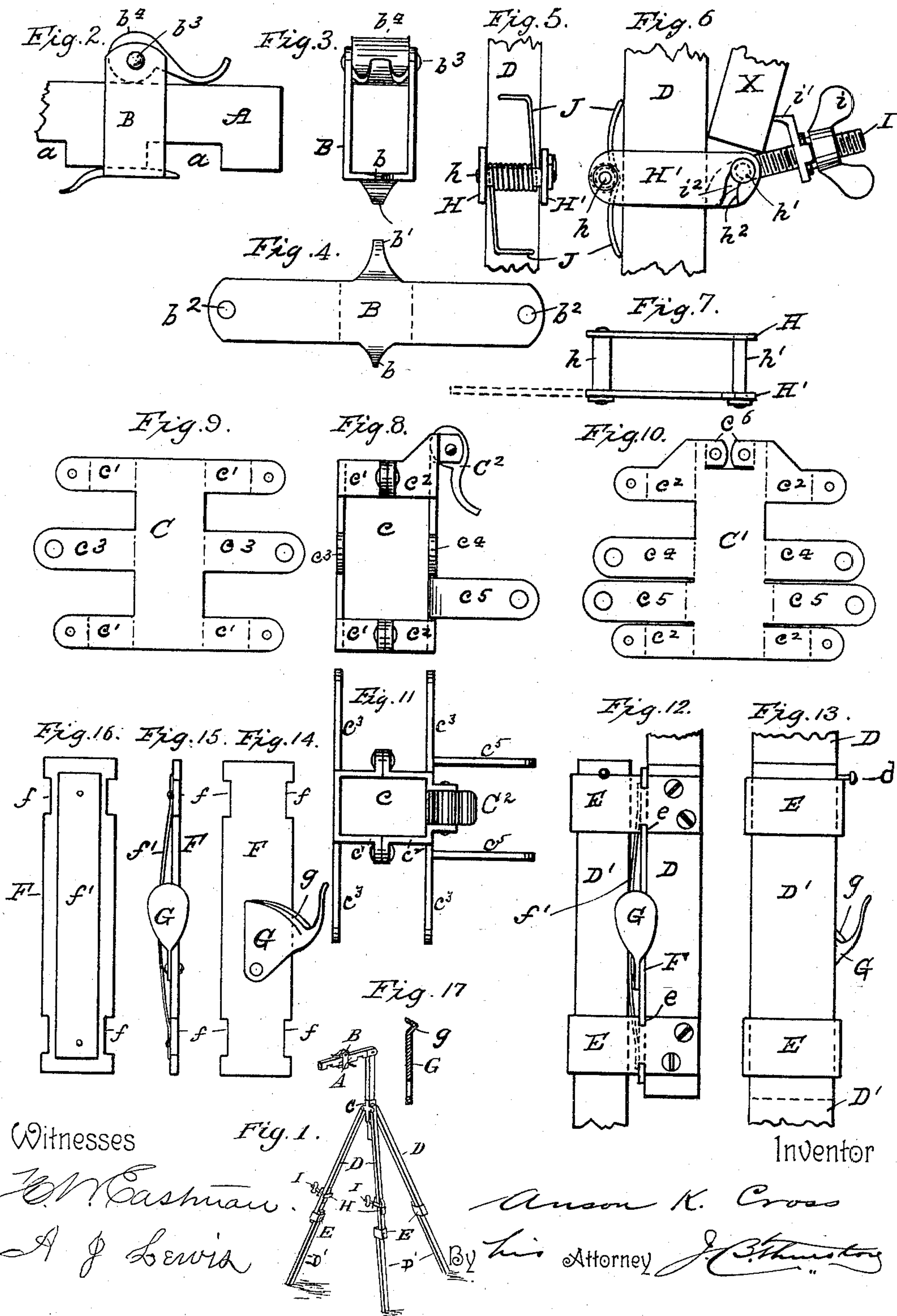
No. 610,644.

Patented Sept. 13, 1898.

A. K. CROSS.
ARTIST'S EASEL.

(Application filed Sept. 15, 1896.)

(No Model.)



UNITED STATES PATENT OFFICE.

ANSON K. CROSS, OF BOSTON, MASSACHUSETTS.

ARTIST'S EASEL.

SPECIFICATION forming part of Letters Patent No. 610,644, dated September 13, 1898.

Application filed September 15, 1896. Serial No. 605,886. (No model.)

To all whom it may concern:

Be it known that I, ANSON K. CROSS, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Artists' Easels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to artists' sketching-easels, and more particularly to certain improved easels patented by me June 14, 1887, No. 364,991, and December 26, 1893, No. 511,324; and the objects of my invention are, first, to reduce the cost of manufacture, and, second, to simplify and increase the efficiency of easels.

The invention will be fully set forth in the following specification and claims and clearly illustrated in the drawings accompanying and forming a part of the same, of which—

Figure 1 represents my improved easel in perspective and having my improvements applied in their proper places. Fig. 2 is an elevation showing a portion of a vertically-adjustable jointed rod having thereon a movable catch for fastening the top of a canvas. Fig. 3 is an edge view of the adjustable catch detached for the jointed rod. Fig. 4 is the blank cut from sheet metal, which may be bent to form the strap portion of the catch for the jointed rod. Fig. 5 is a broken edge view of a portion of one of the legs of an easel having attached thereto my improved fastening for the bottom of a canvas. Fig. 6 is a side view representing the same parts and showing the bottom portion of a canvas as when secured by my improved fastening. Fig. 7 is a detached view of a portion of my improved fastening for attachment to the leg-sections of an easel, showing by dotted lines the manner of opening the fastening for removal. Fig. 8 is a detached view showing an improved construction for a head-piece which carries the jointed sliding bar and to which the legs of an easel are pivotally attached. Figs. 9 and 10 represent the blanks cut from sheet metal from which said head is formed in two parts and riveted together. Fig. 11 is a plan view of the head shown in Fig. 7. Fig. 12 is a broken elevation showing the adjust-

able sections of one of the legs of an easel and my improved clamping device for the same. Fig. 13 represents the same parts in edge view. Fig. 14 is a plate-piece forming part of my improved leg-clamping device and to which is pivotally connected a curved clamping-lever. Figs. 15, 16, and 17 are details.

Similar letters denote corresponding parts throughout the several views.

Among the important features of this improvement in easels are the adjustable canvas-clamps shown in Figs. 4, 5, and 6. In my easel, Patent No. 364,991, dated June 14, 1887, the straps holding the leg-sections together were secured to the upper part of the lower leg-section, and while the adjustable canvas-supports might be placed upon either of the leg-sections, when upon the upper section they would often interfere with the sliding of the lower section, and as the latter was not secured to the upper leg-section it was liable to be dropped off and lost. The easel patented by me, No. 511,324, dated December 26, 1893, obviated this difficulty by attaching the straps encircling the leg-sections to the upper section, a pin being provided in the lower section to prevent its falling out; but this construction did not permit the canvas-clamps to be placed upon the lower section.

It is often desirable that the clamp be upon the lower leg-section, and my present invention embodies a canvas-clamp constructed of two parts and pivotally connected, so as to adapt them for ready attachment to either leg-section, which is a great advantage and improvement over the clamps shown in my patent of 1887.

Referring to the drawings, A is the vertically-movable jointed bar, having grooves or notches *a* in one of its edges for the reception of the top of a canvas. This bar is identical with that shown in my previous patents; but the metal fastening device to be herein described differs from that described in my former patents, being formed of a piece of sheet metal B, having prongs *b b'* on opposite edges intermediate its ends, the latter being perforated at *b²* to receive a pin *b³*, upon which is mounted the cam *b⁴*, taking the place of the more expensive set-screw for fastening the device, as shown in the patent of 1887. My improved head-piece is also formed of sheet

metal and is in two parts C C', which are bent to form a well or socket *c* for receiving the jointed bar A, the ears *c'* *c''*, respectively, being bent and secured together by a rivet and each part C C' being provided, respectively, with ears *c'''* *c''''*, to which are pivoted the side legs of the easel, the part C' having additional ears *c'''''*, to which is pivotally attached the rear leg, and ears *c''''''* for carrying the fastening-cam C², which takes the place of the set-screw used for the purpose in my previous patents, and the whole construction of this improved head is superior to my former construction and is more accurately and more cheaply made.

D represents the upper and D' the lower section of either of the adjustable legs, and in place of the more expensive casting for fastening these sections shown in my patent of 1893 I make the fastening of sheet metal, as fully illustrated by Figs. 11, 12, 13, 14, and 15; and it consists of straps E E, secured by screws to the upper leg-section and passing around the lower leg-section D', said straps being notched, as at *e*, a plate F being notched at *f* for receiving the straps E E by engaging the notches *e*, and a suitable cam-lever G, pivotally attached to said plate F, acting as a wedge between the two leg-sections for holding them at any desired position. This cam-lever may be cheaply made by striking from sheet metal, the cam or wedge portion being made by turning up the outer edge or forming a V-ridge, as shown at *g*, Figs. 13 and 16, said ridge gradually increasing in thickness from end to end. It is also preferable to provide a gib *f'* to rest between the clamping-cam G and the leg-section D', as in Figs. 11 and 14, which consists of a plate of thin metal, and may be riveted to the plate F, as shown best in Fig. 15.

The clamping device for the bottom of the canvas and which by my improved construction is adapted for attachment to either leg-section is formed of two plates of sheet metal, as at H H', connected at their ends by pins *h h'*.

The pins *h h'* may be rigidly attached to the plate H; but the plate H' may be turned upon the pin *h* to the position seen in Fig. 6 for attachment or removal from the leg-sections, the opposite end of the plate H' being provided with a slot *h''*, forming a sort of a hook which receives one end of the pin *h'*, as seen in Fig. 5. Upon the pin *h'* is mounted a threaded stud I, carrying a thumb-nut *i* and a collar *i'*, the latter being forced against the canvas X by said nut, and the inner end of said stud I is curved downward, as seen at *i''*, so as to bear against the leg-section at a point below the pin *h'* when the stud I is borne down by the weight of the canvas X. The pin *h* carries a suitable spring, which for the purpose of economy I prefer to make of wire, as shown at J, Figs. 4 and 5, rather than of flat metal, as shown in my previous patent, the function of the spring being the same, however—viz., to draw the contact end of the

threaded stud I normally against the leg-section; but in the present case it also serves to keep the hooked side H' in place upon the pin *h'*, so that when in use the clamp is practically as firm as if it were not capable of opening for removal, the particular advantage being that a stop-pin *d* may be provided in the leg-section D', which prevents the separation of the sections D D' without in any way interfering with the operation of the improved canvas support or clamp upon either section.

The application of the cam principle in the various instances in the present case is simply a variation of the device as first applied by me in the patent of 1887 to the adjustable fastening for the leg-sections.

For the adjustable canvas-clamp just described I may substitute a variation of the form shown in my patent of 1893 by making the strap encircling the legs in two parts, one of which may be revolved, as in the case herein shown. I may also use a clamp adjusted by a cam, and a somewhat similar form of support may be made by forming the screw and front and back and side of the frame encircling the legs of one solid casting, the screw being at the front, as in the illustration, or at the back, in either case serving to bind the canvas against the easel, as in Fig. 5. The saving of expense which would result from the use of a cam or a wedge in place of the screw to clamp the canvas is, however, so slight that I prefer to use the form illustrated; but any clamp supporting itself and having a screw or cam by means of which the canvas may be clamped to the leg and capable of being placed upon either part of a leg formed in two sections pivotally or otherwise connected and which are prevented from complete separation will come within the scope of my invention.

Having described my improvements, what I claim is—

1. In an easel having legs composed of two sliding sections, the combination of two metal straps having a notch in each edge and secured to the lower end of the upper section, a metal plate provided with notches to engage those of the straps, and a tapering lever secured to said plate acting as a wedge for securing the lower to the upper leg-section.

2. In an easel having legs composed of two sliding sections, the combination of two metal straps secured to the upper leg-section provided with a notch in opposing sides, a metal plate having notches for receiving the straps, a tapering wedge or lever for frictional contact with a sliding leg-section, and a gib of thin metal placed between said section and the wedge-shaped lever, all substantially for the purpose described.

3. In an easel having legs composed of two sliding sections, a pivoted lever formed of sheet metal and provided at its side and at its outer edge with a V-shaped ridge gradually increasing in depth from end to end, said ridge acting as a wedge between the two slid-

ing leg-sections, substantially for the purpose set forth.

4. In an easel, a head for pivotally connecting the legs composed of front and back plates riveted together and forming a socket for the reception of a vertically-sliding bar and provided with three pairs of ears for pivotally connecting the legs of the easel, and means for adjustably fastening the said bar therein.

10 5. In an easel, a head for connecting the pivoted legs composed of front and back plates riveted together and forming a socket for the reception of a vertically-sliding bar and provided with three pairs of ears for attaching
15 the legs of the easel and a pair of ears to which is pivoted a cam-lever, substantially for the purpose set forth.

20 6. In an adjustable easel, a head for connecting the pivoted legs composed of two parts riveted together and forming a well or

socket and provided with three pairs of ears for connecting the legs, said legs being formed of two sections connected by metal straps and secured at a desired adjustment by a cam-lever acting between said sections a jointed
25 sliding bar fitting the well or socket of said head and provided with notches for receiving the top of a canvas and with a movable fastening device for securing said canvas, and
30 adjustable supports for the bottom of a canvas adapted for ready attachment to either leg-section, all combined substantially for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ANSON K. CROSS.

Witnesses:

GEORGE S. DYER,
BENJ. F. WARD.