(No Model.)

T. C. VAIL.

EASEL.

No. 310,481. Patented Jan. 6, 1885.

Fig 1.

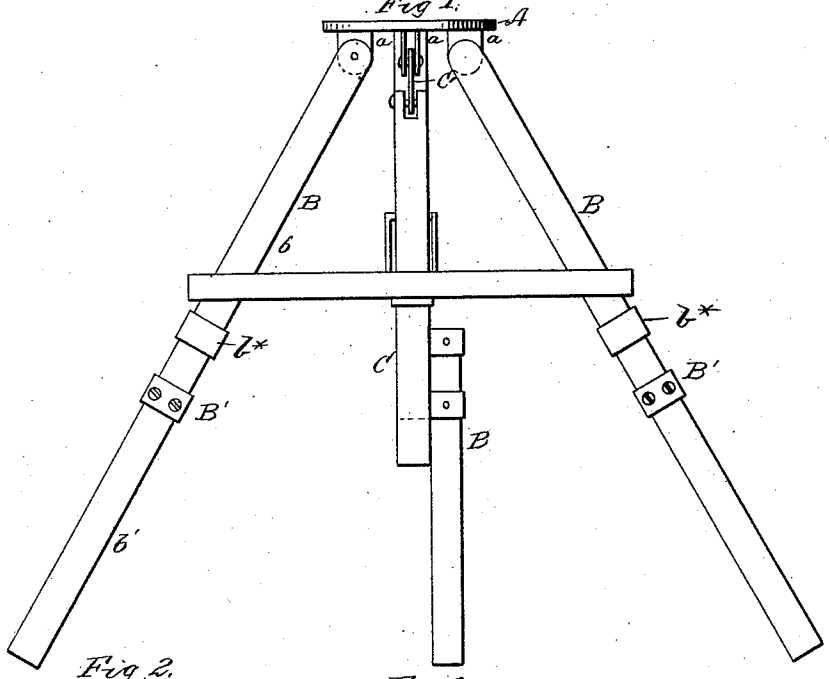


Fig 2.

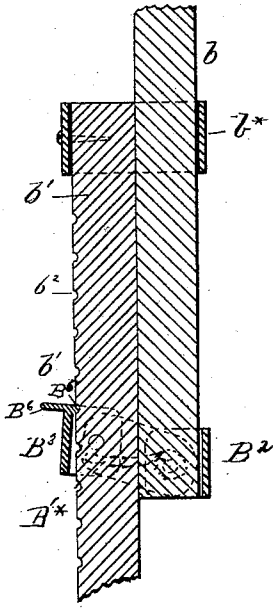


Fig 3.

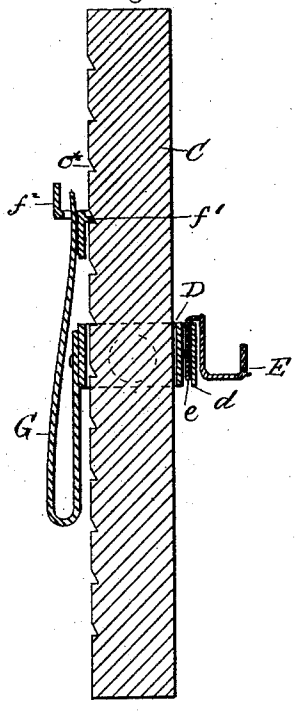


Fig 4.

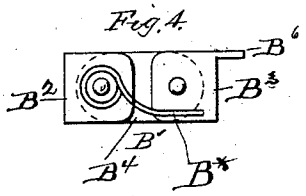
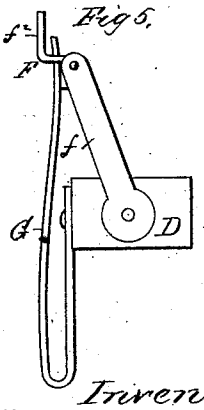


Fig 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS C. VAIL, OF TOPEKA, KANSAS.

EASEL.

SPECIFICATION forming part of Letters Patent No. 310,481, dated January 6, 1885.

Application filed July 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. VAIL, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Easels, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to easels, and is embodied in the means for making the legs extensible, and also for adjusting the shelf-fastening upon the depending rod. I employ the flat circular head with pivot-brackets on the under side, to which are pivoted the legs and the depending arm. The legs are formed of two or more pieces in such a manner as to be adjustable upon each other. A rigid clamp upon one portion of the leg encircles the other portion, and the end of the latter is provided with a hinged or pivoted clamp, with a point for engagement in notches in the former. The plain portion of the leg is usually connected to the pivot-brackets of the head, and the notched portion forms the lower length of the leg. I also provide the depending arm with notches or cuts, in which a fastening which forms the support of the shelf is adjusted up or down. This fastening may be the same as the pivoted clamp heretofore referred to, or it may be made in the form of a rigid clamp, of a size to encircle the depending arm, and be provided with a hinged engaging-point to enter the notches, and a spring to hold it normally therein. The front of the fastening is provided with a slot or opening, into which a wing or bent-over arm on the back of the shelf is thrust to sustain the said shelf, while the adjustability of the fastening allows the movement of the shelf up or down, as may be required.

The details of construction will be more fully understood from the following description in the drawings.

Figure 1 is a front elevation of the easel. Fig. 2 is a longitudinal section of one of the legs with its clamps. Fig. 3 is a section of the depending arm, fastening, and shelf. Fig. 4 is a detail view of the pivoted clamp in side elevation, showing the several parts in line with each other, and a spring applied on the side to throw the engaging edge into the notches on the leg of the easel. Fig. 5 is a similar view of the fastening for the depending arm.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the head, having the brackets *a a a* on its under side, to which the legs B B B and the depending arm C are pivoted, as shown. The legs B are formed of an upper portion, *b*, and a lower portion, *b'*, which slide upon each other.

To the top of the lower portion, *b'*, is secured a rigid clamp, *b**, which loosely encircles the upper portion, *b*, and to the lower end of the upper portion, *b*, is secured a pivoted clamp, B', which is formed of two bent side pieces, B^2 B^3, and two end pieces, B^4. The end pieces, B^4, are pivoted to the side pieces, as shown, so that the two side pieces may assume positions of a different height, and one of them be thrown out at a slight angle to the leg, as shown in Fig. 2. The side B^3, which is thus thrown out, is provided with a protruding edge, B^5, on its inner upper edge, as shown, and with a thumb-piece, B^6, on its outer upper edge. The edge B^5 projects into the notches b^2 in the back of the portion *b'*, and securely holds the two portions of the leg at any height they may be set. When it is desired to change the height of the legs, the thumb-piece B^6 is depressed and the edge B^5 disengaged from the notches, when the two parts *b b'* of the legs may be moved upon each other. A spring, B*, is secured to one of the parts B^2 or B^3, and acts upon the other in such a way as to throw the edge B^5 into the notches b^2, as is done in Fig. 2. This spring is shown in Fig. 4 in full lines and in Fig. 2 in dotted lines. Each leg is provided with this adjusting means. The depending arm C is secured to one of the pivot-brackets *a* by means of a link, C', pivoted at one end to the bracket, and at the other to the top of the arm. The fastening which supports the shelf upon this arm is made adjustable, and consists of the following parts: the clamp or band D, provided upon its front with the outer plate, *d*, between which and the front of the band D is afforded an opening, into which the tongue *e*, which is formed upon or secured to the back of the shelf E, is

thrust to support said shelf. The sides of the clamp D are provided with hinged or pivoted arms *f f*, which extend up and are pivotally attached to the engaging device F, which takes hold of the arm C and holds the fastening at any height. This engaging device has a lip or protruding edge, *f'*, on its inner upper edge, which engages in the notches *c** in the arm and serves to hold the fastening at any height. A thumb-piece, f^2, is provided, by means of which the device is disengaged. A spring, G, secured upon the clamp D, serves to keep the device F normally engaged with the notches *c'*, and insures certainty of action. The force of the spring G is overcome by means of the thumb-piece, and when the device is disengaged it may be moved up or down on the arm, and thus set the shelf higher or lower thereon. I would not, however, be understood as limiting myself to the use of the device with this particular spring, as the device will give satisfactory results without any spring, and the form of the clamp shown in Fig. 4 may, in substance, be adopted for use upon the depending arm in lieu of the engaging device F, having a spring on one side to hold legs in position.

Having thus described my invention, what I desire to claim and secure by Letters Patent is—

1. A clamp for holding the legs of an easel at different heights, consisting of the portions B^2 B^3, having the side portions, B^4, pivoted thereto, and the spring B^5, as set forth.

2. The combination, with the adjustable leg portions *b b'*, one of which is provided with the notches b^2, of the pivoted clamp described, having the lip or protruding edge B^5 and the thumb-piece B^6, as set forth.

3. A fastening for the depending arm of an easel, consisting of the band D, pivoted arms *f*, and engaging device F, substantially as set forth.

4. A fastening for easels, consisting of the band D, having the auxiliary front plate, *d*, pivoted arms *f*, engaging device F, lip *f'*, and thumb-piece f^2, and provided with the spring G, as set forth.

5. The combination, with the depending arm C, having the notches *c'*, of the band D, having the auxiliary front plate, *d*, forming a pocket or slot on the front of the band, pivoted arms *f f*, and engaging device F, all substantially as and for the purpose set forth.

6. The combination, with the depending arm C and the shelf E, having the tongue *e*, as shown, of the fastening described, consisting, essentially, of the band D, having pocket on the front to receive the tongue *e*, and a device for engaging the fastening adjustably upon the arm, as set forth.

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

THOMAS C. VAIL.

Witnesses:
W. W. MAUSPEAKER,
HARRY AUSTIN.