

3 Sheets—Sheet 1.

No. 484,506.

Patented Oct. 18, 1892.



George L. Cragg.
M. Jeanne Tallett

Inventor:
John Newell
By Barton Brown
attys

(No Model.)

3 Sheets—Sheet 2.

J. NEWELL.
SCENE SHIFTING APPARATUS.

No. 484,506.

Patented Oct. 18, 1892.

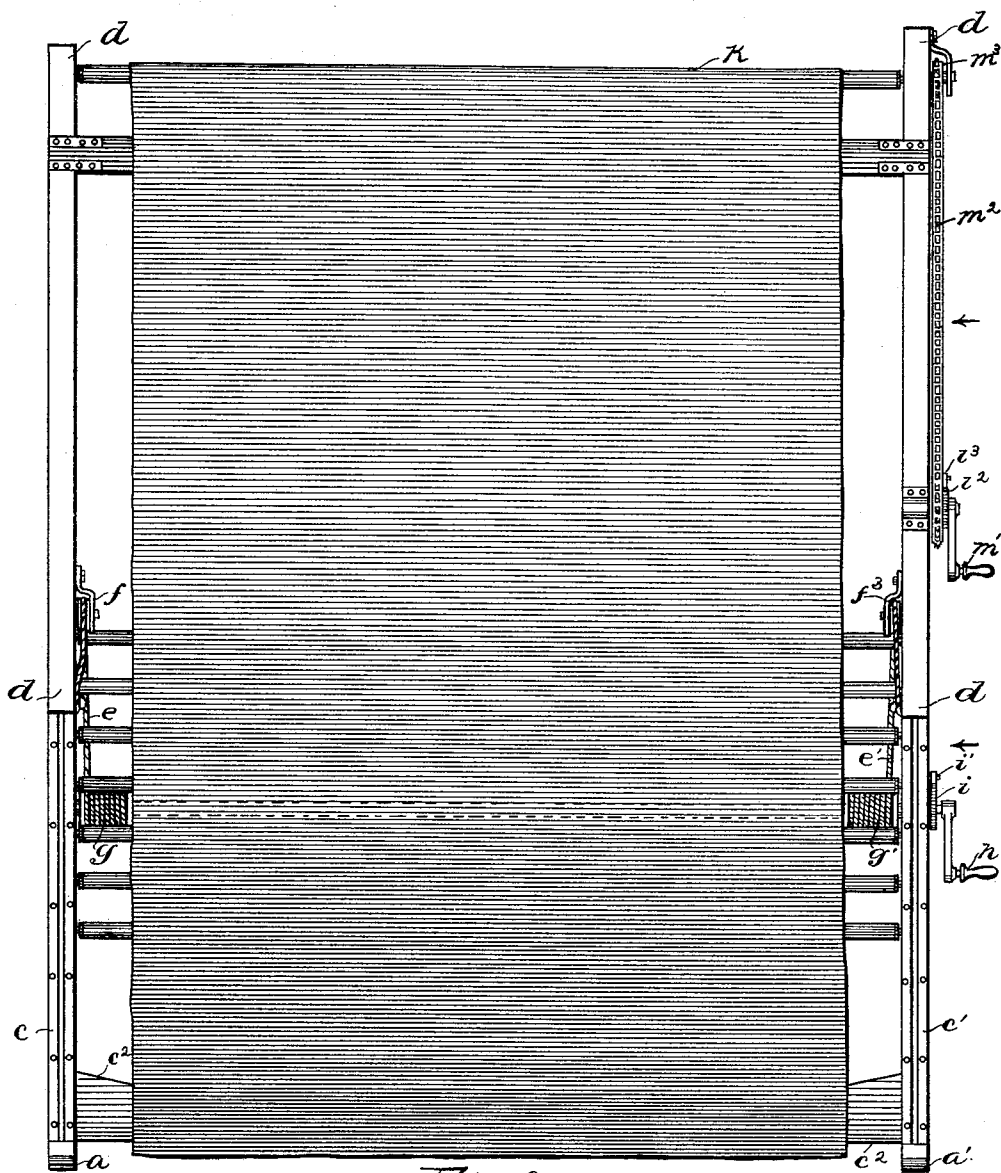


Fig. 3

Witnesses:
George L. Cragg
M. Frank Talbot.

Inventor:
John Newell.
by Barton Brown
Attys.

(No Model.)

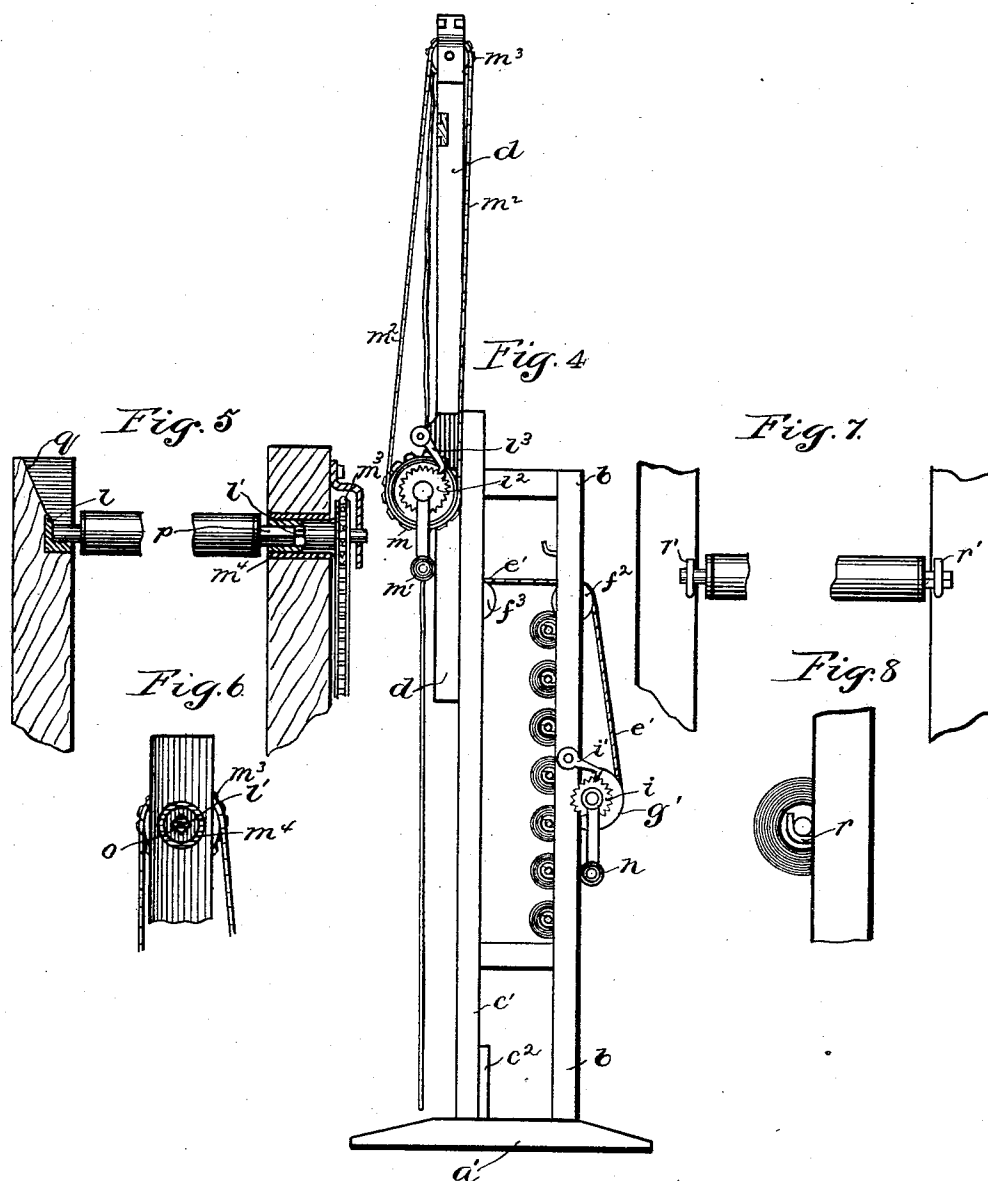
3 Sheets—Sheet 3.

J. NEWELL.

SCENE SHIFTING APPARATUS.

No. 484,506.

Patented Oct. 18, 1892.



Witnesses:

George L. Cragg
M. Jane Tallett

Inventor:
John Newell.
By Barton & Brown
attys

UNITED STATES PATENT OFFICE.

JOHN NEWELL, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO SWEET,
WALLACH & CO., OF SAME PLACE.

SCENE-SHIFTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 484,506, dated October 18, 1892.

Application filed April 12, 1892. Serial No. 428,842. (No model.)

To all whom it may concern:

Be it known that I, JOHN NEWELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Scene-Shifting Apparatus for Photographers' Use, (Case No. 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to apparatus for supporting backgrounds, charts, and maps. Its object is to provide means whereby backgrounds, &c., may be put in a comparatively small space when not in use.

The apparatus of my invention is, primarily, designed for the use of photographers; but its adaptation to other uses is obvious. In describing the object which is to be supported rolled and unrolled I make use of the word "scene," intending thereby to include maps, charts, and all such objects as are adapted to be used in connection with the apparatus of my invention. To this end I employ a holder consisting of two rectangular frames. One frame is adapted to slide vertically upon guides situated at a sufficient distance in front of the other frame, which is stationary, being fixed upon a firm base. Upon the front faces of the pieces of timber forming the vertical sides of this stationary frame I provide hooks adapted to support the rolls or scenes when not in use. These scenes are rolled upon spindles much in the same manner as an ordinary window-blind. When a scene is to be used, it is removed from its supporting-hooks, the spindle upon which it is wound is inserted in suitable bearings provided in the vertical sides of the sliding frame, the sliding frame is then raised to any desired height for which it is adapted, and the scene unrolled and lowered.

My invention will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a front elevation of my device with the sliding frame but partially raised. Fig. 2 is a sectional view on line *xx* of Fig. 1. Fig. 3 is a front view showing the sliding frame raised almost to its limit. Fig. 4 is an

end elevation of Fig. 3, looking in the direction indicated by the arrows. Fig. 5 is a detail showing method of mounting the spindle in the bearings provided in the upper portion of the vertical sides of the sliding frame. Fig. 6 is a front view of one of said bearings. Fig. 7 is a detail view of the stationary frame, showing the manner in which the rolls of scenes are supported and kept while not in use. Fig. 8 is an end view of a roll thus supported.

Like parts are indicated by similar letters of reference throughout the different views.

Upon the bases *a a'* are mounted the frame *b* and guides *c c'*. These bases are firmly connected together by means of board *c²*. Upon guides *c c'* slides frame *d*. To the lower portions of the vertical sides of frame *d* are attached the ends of ropes *e e'*, passing over pulleys *f*, and one (not shown) directly behind *f*, *f²*, and *f³*, the other ends of ropes *e e'* being attached to reels *g g'*.

When it is desired to raise the frame *d*, the crank *h* is turned, transmitting rotary motion through axle *h'*, thus turning reels *g g'*. The ropes *e e'* are thus wound upon reels *g g'* and frame *d* is raised to the desired height. When frame *d* is at the proper height, its weight is sustained by means of ratchet-wheel *i* and pawl *i'*. The pawl *i'* is pivoted upon the inner side of the upright *b* and engages with the ratchet-wheel *i*, carried upon the shaft *h'* in the plane of said pawl.

The scene *k* is unrolled from the spindle previously placed in bearings *l l'*, provided in the top portions of the vertical sides of frame *d* by rotating sprocket-wheel *m*, which is accomplished by means of crank *m'*. Motion is thus transmitted through chain *m²* to sprocket-wheel *m³*. The axle of sprocket-wheel *m³* is journaled in bearing *m⁴*. This axle is provided with a rectangular recess *o*, adapted to contain the square end of the spindle, as shown most clearly in Figs. 5 and 6. This method of inserting the spindles into bearings *l l'* causes sufficient friction, so that when the canvas-painted scene is lowered the desired distance its weight may be supported by means of ratchet *i* and pawl *i'*.

I preferably arrange bearings as shown in Figs. 5 and 6, but some other form might

answer the same purpose. As will be seen by reference to Fig. 5, I place the bearing *l* in the upper portion of the left-hand upright of the sliding frame *d* at the foot of an inclined plane *q*, so that when the square end of the spindle is inserted in its corresponding square recess *o* the cylindrical end will find a firm resting place, thus preventing much lateral movement and securing the scene so as to prevent its falling.

Referring to Figs. 7 and 8, it will be seen that I provide simple hooks or bearings *r r'*, inserted in the uprights of the stationary frame *b*. Each set of these hooks or bearings should be placed at such distances apart as to permit of easy access to any roll of scene desired.

My holder may be made of any size or height, so as to accommodate any reasonable number of rolls of scenes to suit the varying exigencies of the uses to which the apparatus is adapted.

As is well known, photographers have been accustomed to the use of scenes stretched upon and attached firmly to separate frames. Now it is obvious that as photographers require many different scenes they occupy much room, besides being very cumbersome. By rolling the scenes up and storing them away as is done in the use of my holder they are at once neatly and compactly stored away and saved unnecessary wear and tear.

My invention admits of various modifications, therefore I do not limit myself to the precise construction shown, nor do I limit myself to its use by photographers.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a scene-holder, of a frame fixed firmly upon a base with hooks or bearings placed at proper distances in the uprights of said frame, said hooks adapted to contain and support the rolls of scenes when not in use, and a vertically-sliding frame adapted to receive and raise said rolls of scenes, and means provided upon said movable frame for rolling and unrolling said scenes, substantially as and for the purpose specified.

2. The combination of a suitable base with a stationary frame and guides permanently fixed thereon, said frame adapted to contain rolls of scenes when not in use, and a sliding frame adapted to slide vertically upon said guides, substantially as described.

3. The combination of reels *g g'*, fixed upon a common axle *h'*, suitably mounted upon the stationary frame *b*, with ropes *e e'* attached at their ends to each reel separately, passing

over pulleys and attached at their other ends to the lower portions of the uprights of the sliding frame *e*, with crank *h* attached to said axle *h'* and adapted to rotate the same and the reels upon it, whereby ropes *e e'* may be wound each upon its respective reel, thus raising the sliding frame *d* and ratchet-wheel *i* and pawl *i'*, whereby the weight of frame *d* may be supported, and means provided upon said sliding frame *d* for rolling and unrolling the scene carried thereon, substantially as described.

4. In a scene-holder, the combination of guides with a frame adapted to slide vertically thereon, a sprocket-wheel, a chain adapted to be turned by means of a crank, said crank being attached to said sprocket-wheel, another sprocket-wheel mounted in suitable bearings turned by the said chain, a roll of scene adapted to be turned by the last-mentioned sprocket-wheel, and a ratchet-wheel and pawl adapted to support the weight of said scene.

5. In a scene-holder, the combination, with a rotating bearing having an angular recess, of a spindle having one end adapted to fit said recess, the other end of said spindle being free to turn in a bearing, a scene adapted to be rolled upon said spindle, mechanism adapted to turn said rotating axle, and a vertically-adjustable support for the bearings of said spindle, substantially as and for the purpose specified.

6. The combination, with reels fixed upon a common axle suitably mounted upon a stationary frame, of ropes attached at their ends to the respective reels passing over pulleys and attached at their ends to a sliding frame, a crank attached to said axle and adapted to rotate the same and the reels upon it, whereby said ropes may be wound upon their respective reels to raise the sliding frame, a ratchet-wheel and pawl adapted to support the weight of the frame when at rest, a sprocket-wheel carried upon said sliding frame, a crank attached to said wheel to rotate the same, a second sprocket-wheel mounted in suitable bearings and turned by a chain traveling over said sprocket-wheels, a roll of scene adapted to be turned by the last-mentioned sprocket-wheel, and a ratchet-wheel and pawl adapted to support the weight of said scene.

In witness whereof I hereunto subscribe my name this 29th day of March, A. D. 1892.

JOHN NEWELL.

Witnesses:

GEORGE MCMAHON,
GEORGE L. CRAGG.