Sheet 1-2 Sheets.

D. Morrison.

Scaffold.

No. 78,886. Patented Jun. 16, 1868.

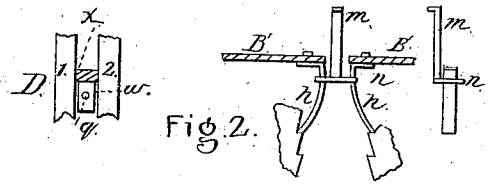

Fig. 2.

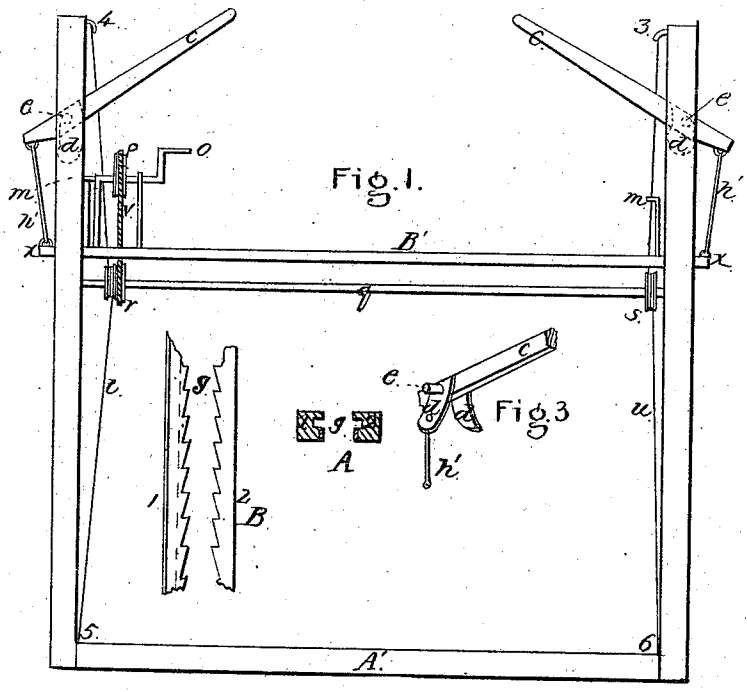

Fig. 1.

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Henry C Houston

Inventor:

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Sheet 2 - Sheets.

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Scaffold.

No. 78,886. Patented Jun. 16, 1868

Fig. 2.

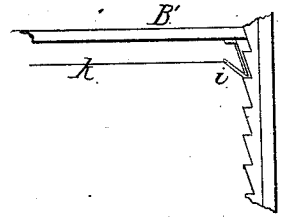
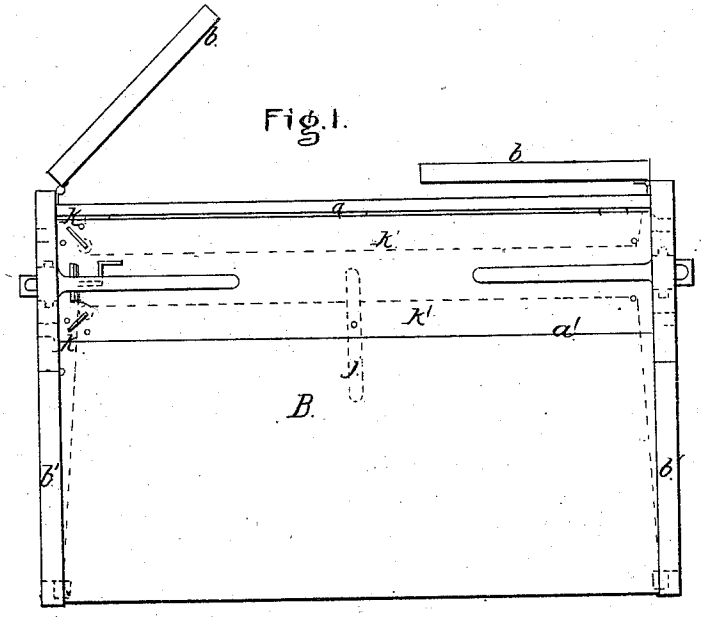


Fig. 1.



Witnesses:

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DUNCAN MORRISON, OF PORTLAND, MAINE.

Letters Patent No. 78,886, *dated June* 16, 1868.

IMPROVED STAGING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DUNCAN MORRISON, of Portland, in the county of Cumberland, and State of Maine, have invented a new and useful Improved Staging; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being had to the accompanying drawings, forming part of this specification, in which—

Plate 1, Figure 1, shows a side elevation of my invention.

Figure 2, an end view of the springs that sustain the platform, illustrating the method of releasing the same from the vertical-toothed rack.

Figure 3, a view of one of the lifting-levers, with its springs and cord.

A is a top view of the two studs with the slots in which the pivots of the levers work.

B shows the vertical-toothed racks on the studs or standards.

Plate 2, Figure 1, is a top plan of the platform, showing the manner of its folding up.

Figure 2, a side view of a portion of the vertical-toothed racks, the springs supporting the platform, and the method of releasing the same.

The purpose of my invention is to produce a staging, for mechanics or other operatives, which can be elevated or lowered at the will of the person standing on the platform by the hand of such operator while so standing upon the platform.

Also, it is the purpose of my invention to make the platform so as to fold up, and thus be easily portable.

A′ shows the base of the staging. B′ is the movable and folding platform. The whole device can be folded into a comparatively small compass by the platform B′, folding at *a a′*, fig. 1, plate 2, and the supporting-standards swinging inwardly, as illustrated at *b b′*, will also fold inwardly in the same manner.

The platform B′ is elevated or lowered as follows: *c* are levers with flaring-spring rests, *d*, and with pivots, *e*. The flaring-spring rests catch in the teeth of the racks *f*. The levers pass between the two centre standards 1 2 in the space *g*. The links or cords *h′* connect the outer end of the levers with the platform B′. Thus, it will be seen, as the inner ends of the levers are pressed down, the platform will be raised, and the springs *d d* catching in the teeth on the standards 1 2 will carry up the levers, and supply the fulcrum therefor as the platform B′ ascends.

The platform has springs, *h*, on its under side, which, as it rises, also catch in the teeth of the racks on the standards 1 2, and thus assist in supporting the platform on the centre standards.

The wings or folding parts of the platform are supported on the corner standards by springs, such as *i*.

When it is desired to prevent the platform from folding or collapsing, the pivoted braces *j* are turned across the jointed or hinged part of said platform, fig. 1, plate 2. Thus it will be understood that the platform B′ can be raised by the levers *c*, and held at any point by the spring-catches *h i*, catching in the teeth on the four corner and four centre standards.

The method of lowering the platform is as follows: The springs *i*, supporting the corners of the platform, are first drawn out of the teeth in the racks running up the corner standards. This is done by means of the cranks *k*, which turn small vertical drums on the lower side of the platform B′ from these stretch-cords to the said springs *i*.

Turning the cranks *k* in one direction, the springs *i* are drawn out of the toothed racks, and thus the four corners of the platform are unsupported. Reversing the motion, the springs will fly back into the teeth again. The springs *h*, that catch the teeth of the vertical racks on the centre standards, plate 1, fig. 2, are released from the teeth by pressing downward on the upright bars *m*. This pressure drives the clamp *n* down over the springs *h*, thus bringing them together and out of the teeth in the racks 1 2, plate 1, fig. 2.

The platform is then free to ascend.

The crank *o* being then turned, and with it the drum *p*, the shaft *q* is revolved. This shaft has two trucks *r s*. Wound several times around these trucks are the cords *t u*, attached at 3 4 5 6. The cord or belt *v* con-

nects the shaft and drum of the crank *o* with the shaft *q*. This shaft *q* turns in sliding pieces, *w*, attached to the part *x* of the platform, projecting between the centre standards, (see D.) Thus, then, the person standing on the platform B′ can lower himself by turning, or allowing to turn, the crank O.

When the platform has reached the desired point in the downward movement, the springs *i* are allowed to enter the toothed racks on the corner standards by turning cranks *k* in the proper direction, and springs *h* are allowed to enter the teeth on the centre racks by raising bars *m m*.

When the platform B′ is lowered by turning the levers *e*, so that they may rest vertically in the slots or spaces, *g*, between the centre standards, the springs *d* will be thrown out of the teeth in said standards, and so will not impede the motion of the platform, the pivots *e* moving up and down in the grooves in the standards, (see A, plate 1.)

The cords extending from cranks *k* to springs *i*, and operating the same, are shown by dotted lines, *k′*, (see fig. 1, plate 2.)

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

1. The combination, with the centre standards, of the levers *e* and spring-catches *d*, connected with the platform B′, in the manner and for the purpose herein set forth.

2. In combination with platform B′, the crank *o*, pulley *p*, cord *v*, shaft *q*, and cords *t u*, as and for the purpose herein set forth.

3. The combination of cranks *k*, cords *k′*, and springs *i*, connected with the cranks *k*, as described, and for the purposes set forth.

4. The combination of the bars *m* with the clamps *n* and springs *h h* on the platform, to release the said springs, as and for the purposes herein set forth.

5. The combination and arrangement of the staging, so that it may be folded, as herein described, in the manner and for the purposes set forth.

DUNCAN MORRISON.

Witnesses:

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WM. FRANK SEAVEY.