No. 662,566. Patented Nov. 27, 1900.

J. W. JONES.

PORTABLE STAGING.

(Application filed Mar. 14, 1898.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1.

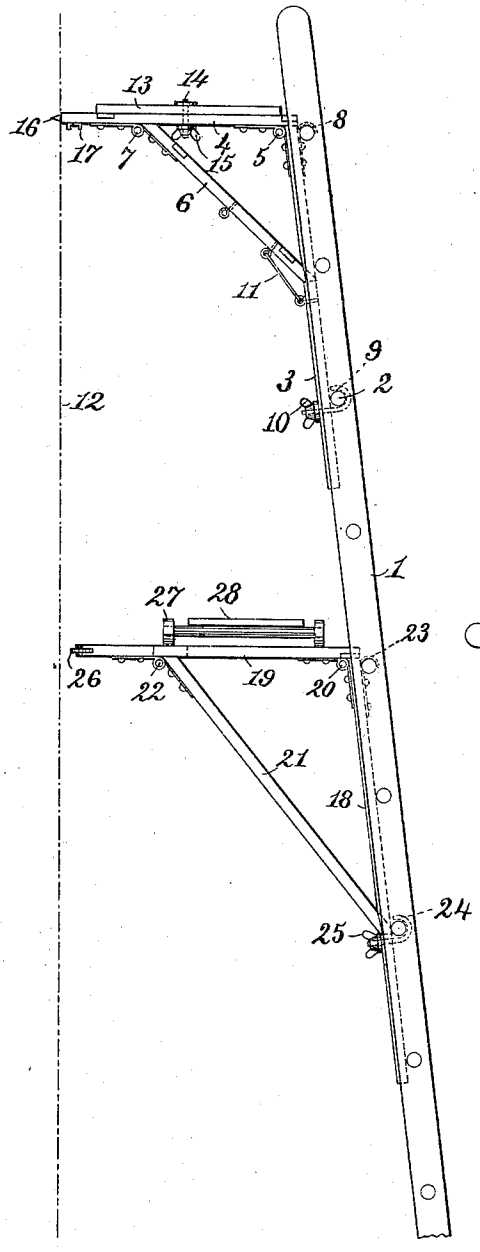
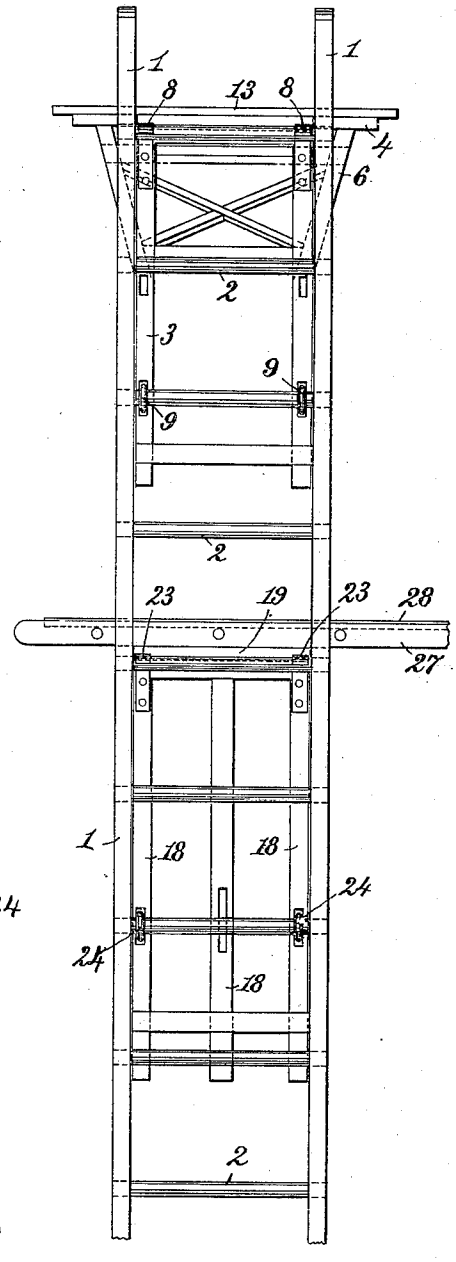


Fig. 2.



Witnesses

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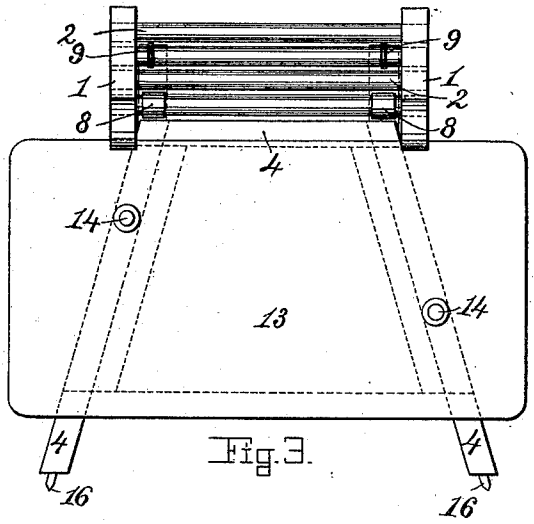


Fig. 3.

Fig. 4.

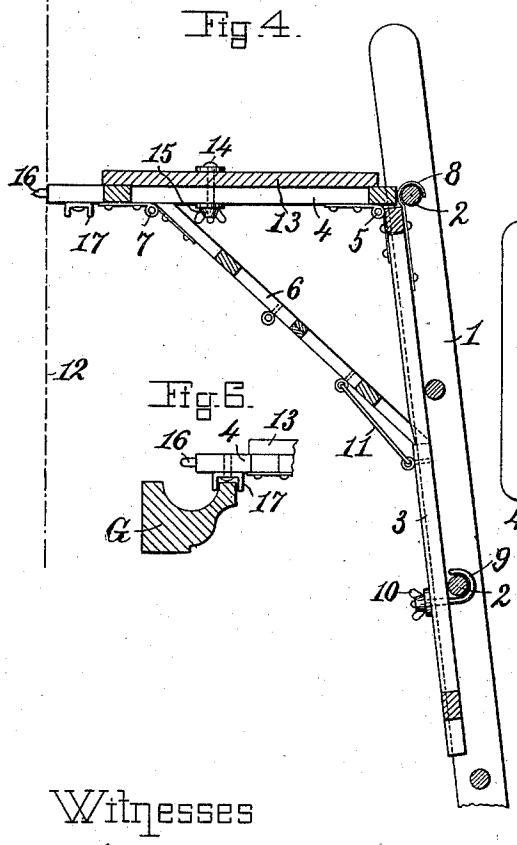
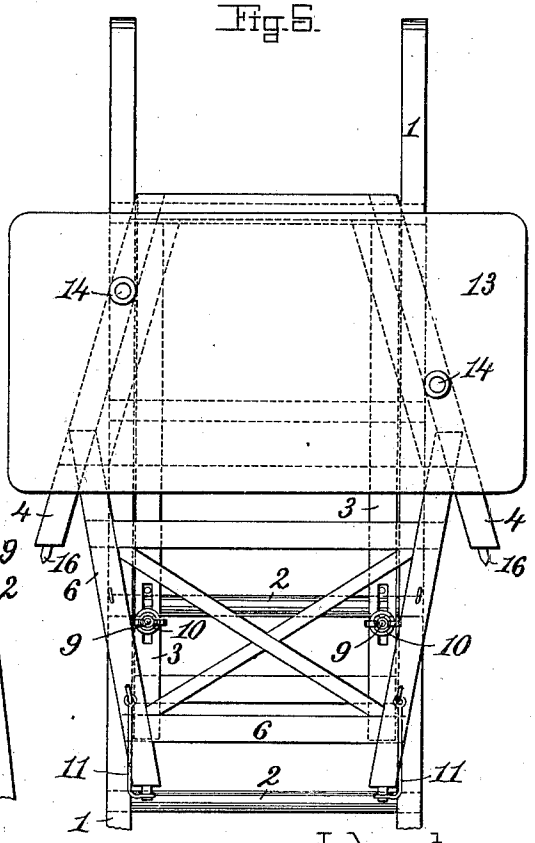


Fig. 6.

Fig. 5.



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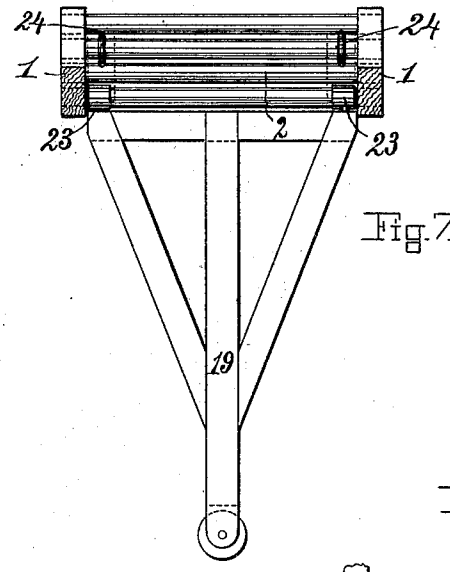


Fig. 7.

Fig. 8.

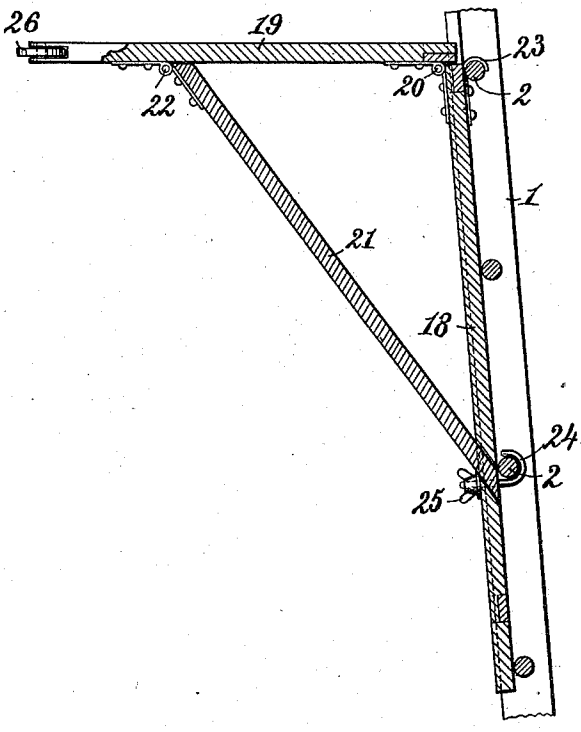
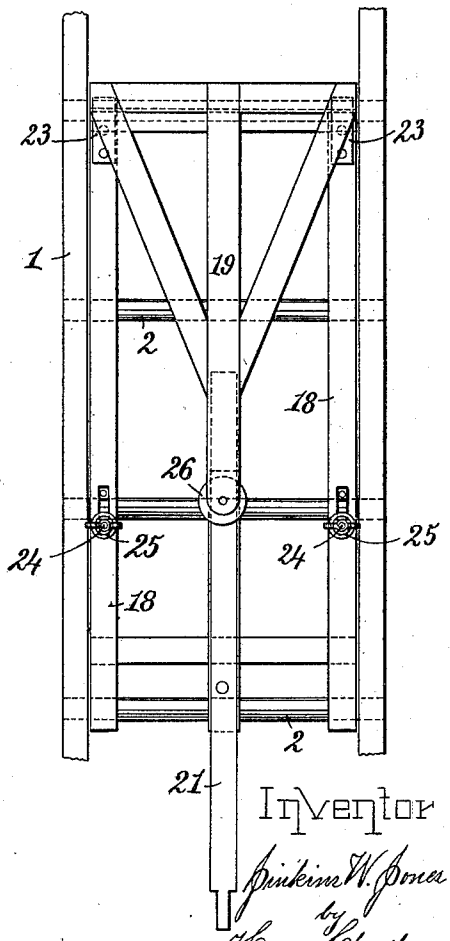


Fig. 9.



Witnesses

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UNITED STATES PATENT OFFICE.

JINKINS W. JONES, OF WOBURN, MASSACHUSETTS.

PORTABLE STAGING.

SPECIFICATION forming part of Letters Patent No. 662,566, dated November 27, 1900.

Application filed March 14, 1898. Serial No. 673,696. (No model.)

To all whom it may concern:

Be it known that I, JINKINS W. JONES, of Woburn, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Portable Staging, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in portable staging for carpenters, masons, &c., to be used upon buildings and in similar places, and has for its object to produce a staging which will be strong, substantial, easily erected or removed, and can be used over and over without injury to the staging or to the building upon which it is used, to produce a staging which will employ for the greater part of its construction ordinary ladders, which are necessary tools to be in the possession of carpenters, thus reducing the necessary increase in expense or in the material for the construction of the staging as much as possible.

The invention consists of brackets which are movably attached to the ladder, ladders, or other similar support, so as to be adjustable up and down upon the same to suit them to the desired height of the staging. These brackets are preferably provided with means whereby they can be folded so as to occupy as small a space as possible when they are not in use and during transportation of the same. Two or more ladders provided with such brackets may be used in connection with a ladder extending across the brackets on the supporting-ladders.

It consists also in minor details of construction, as will be clearly set forth hereinafter and claimed.

The invention is carried out substantially as illustrated on the accompanying drawings, which form an essential part of this specification and whereon the preferred form of my invention has been illustrated; but it is to be understood that modified forms of the same within the scope of mechanical skill are intended to be included within this invention.

On the drawings, Figure 1 represents a side elevation of my invention in its preferred form. Fig. 2 represents a front elevation of the same. Fig. 3 represents a plan view of the upper bracket attached to the ladder. Fig. 4 represents a central vertical section of the same. Fig. 5 represents the same bracket folded ready to be stored or to be transported. Fig. 6 represents a detail of the same bracket, showing how it engages the gutter of a building to support the staging. Fig. 7 represents a plan view of the lower bracket attached to the ladder. Fig. 8 represents a central vertical section of the lower bracket, and Fig. 9 represents the lower bracket folded to be stored or to be transported

Similar characters of reference refer to similar parts wherever they occur on the different parts of the drawings.

To an ordinary ladder, but preferably to a ladder in which the sides 1 1 are parallel to each other, as shown, and the rungs 2 2 are of equal length, are secured the upper and lower brackets, which form the essential parts of my invention. These brackets are preferably made by constructing their different parts of framework, so as to secure sufficient strength with as little weight as is possible.

The upper bracket consists of the part 3, the part 4, preferably hinged at 5 to the part 3, and the brace 6, preferably hinged at 7 to the part 4. The part 3 is adapted to be secured to the rungs of the ladder by means of the hooks 8 8 at the top of said part and the hook-bolts 9 9, which pass through slotted perforations in the part 3 and are provided with the thumb-nuts 10 10, substantially as shown. The hooks 8 and hook-bolts 9 embrace the rungs of the ladder, and by means of the same the bracket may be removed from the ladder or be attached to any part thereof, as desired. When this bracket is secured to the ladder, as shown in Figs. 1, 2, 3, and 4, to form a staging, the lower ends of the brace 6 are so arranged that they enter perforations or recesses in the part 3 and are held in that position by means of the hooks 11 11 or by means of equivalent and well-known devices.

In using my invention as thus far described to form a staging the lower end of the ladder is placed upon the ground at such a distance from the building as to cause the upper end of the ladder when raised to incline toward the building and the ends of the part 4 of the upper bracket to rest against

the side of the building, which has been represented in Fig. 1 by a broken line 12. When in this position, it is intended that the part 4 shall be upon a horizontal plane, or nearly so. In order to use the device as a short staging, I provide the part 4 with a platform 13, secured thereto by means of the bolts 14 and thumb-nuts 15 in such a manner that said platform is easily removed or replaced, as desired; but if a long staging is desired I use two or more ladders with upper brackets, as shown, attached thereto, placed in the position shown in Fig. 1, and place a ladder, planks, or other support of a sufficient length upon said brackets, so as to form a platform the length of the staging desired. To prevent the ladder from moving sidewise and causing the collapse of the staging, I prefer to provide the ends of the part 4 of the bracket with one or more suitable spurs 16, which enter the clapboards and hold the ladder in proper position.

When using the staging in shingling the roof and to prevent any liability of the carpenter pushing the staging away from the house while he is working upon it, I provide the ends of the part 4 with the clasps 17, which embrace the edge of the gutter G, as shown in Fig. 6, and thereby securely hold the staging to the building.

By making the bracket so as to be easily removed from the ladder and attachable at different parts thereof I am able to readily adjust the staging to different heights of buildings and can use the ladder for other purposes, if desired.

In connection with the upper bracket used upon the ladder I prefer to use a lower bracket, which is constructed substantially as follows and as shown in Figs. 1, 2, 7, 8, and 9: This lower bracket is constructed similar to the construction of the upper bracket, it consisting of the part 18, the part 19, hinged at 20 to the part 18, and the brace 21, hinged at 22 to the part 19. The part 18 is removably secured to the rungs of the ladder by means of the hooks 23 23 at the top of said part and the hooked bolts 24 24, which pass through slotted perforations in the part 18 and are provided with the thumb-nuts 25 25, substantially as shown. These hooks and hooked bolts embrace the rungs of the ladder, and by means of the same the bracket may be removed from the ladder or be attached to different parts thereof, as desired, in order to vary the height of the staging. Upon the end of the part 19 of the lower bracket is mounted a friction-roll 26, the object of which will be understood by a further description of the invention.

When clapboarding the side of a building or doing other work which requires the adjusting of the staging up and down to different heights as the work progresses, I use the necessary number of ladders to support the required length of staging and provide each ladder with an upper and a lower bracket and so attach the upper brackets as to cause their ends to rest against the upper part of the wall of the building, as shown in Fig. 1, or to embrace the gutter, as shown in Fig. 6, when the ladders are in place. The lower ends of the ladders are placed at such a distance from the building as to keep the ends of the lower brackets from coming into contact with the side of the building in any of the positions to which they may be adjusted upon the ladders. The lower brackets are then adjusted to the desired height and the platform of the staging is placed upon the lower brackets. On Figs. 1 and 2 of the drawings the platform has been represented as being made by a ladder 27 and board or plank 28; but other material might be used for said platform, if desired. When it is desired to raise or lower the staging, it is only necessary to raise or lower the lower brackets upon the ladders.

If it is desired to move the ladder with its attached bracket alongside of a building from one position to another, it is only necessary to move the lower end of the ladder in toward the building until the roll 26 on the lower bracket comes into contact with the side of the building and causes the spurs 16 on the ends of the upper bracket to be withdrawn from the building. The ladder can then be moved sidewise to the desired position and the roll 26 will roll upon the side of the building, after which its lower end can be moved away from the building until the roll 26 is withdrawn from contact with the side of the building.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In a portable staging, a bracket to be attached to a ladder or other support, consisting of a supporting portion to be attached to and to lie against the ladder, hooks secured to the upper end of said portion and hooked bolts adjustable within slotted perforations near the lower end of said portion, said hooks and hooked bolts engaging the rungs of the ladder, whereby the supporting portion of the bracket is adjustably but rigidly secured to the ladder, a horizontal portion hinged to the upper end of the supporting portion, a brace hinged at its upper end to the horizontal portion and its lower ends adapted to be attached to the supporting portion, and means to firmly hold said parts in proper relation to each other when in use, whereby the bracket may be folded to occupy a small space when not in use and is secured firmly to the ladder when in use, for the purpose set forth.

2. In a portable staging, a ladder, combined with a bracket to be firmly but adjustably secured thereto, said bracket consisting of a supporting portion to be attached to and to lie against the ladder, hooks secured to the upper end of said portion and hooked bolts adjustable within slotted perforations near the lower end of said portion, said hooks and

hooked bolts engaging the rungs of the ladder, whereby the supporting portion of the bracket is adjustably but rigidly secured to the ladder, a horizontal portion hinged to the upper end of the supporting portion, a brace hinged at its upper end to the horizontal portion and its lower ends adapted to be attached to the supporting portion, and means to firmly hold said parts in proper relation to each other when in use, whereby the bracket may be firmly attached in its proper position to the ladder before raising the ladder, the ladder may be moved upon the building from place to place with the bracket attached thereto, and the bracket may be folded while still attached to the ladder, for the purpose set forth.

3. In a portable staging, a bracket to be attached to a ladder or other support, consisting of a supporting portion to be attached to and to lie against the ladder, means to firmly secure said portion to the ladder, a horizontal portion hinged to the upper end of the supporting portion, an antifriction-roll upon the free end of said horizontal portion, a brace hinged at its upper end to the horizontal portion, and its lower ends adapted to be attached to the supporting portion, and means to firmly hold said parts in proper relation to each other when in use, whereby the bracket may be folded to occupy a small space when not in use, and is secured firmly to the ladder when in use, for the purpose set forth.

4. In a portable staging, a ladder, combined with a plurality of brackets firmly secured thereto, each bracket consisting of a supporting portion to be attached to and to lie against the ladder, hooks secured to the upper end of said portion and hooked bolts adjustable within slotted perforations near the lower end of said portion, said hooks and hooked bolts engaging the rungs of the ladder, whereby the supporting portion of the bracket is adjustably but rigidly secured to the ladder, a horizontal portion hinged to the upper end of the supporting portion, a brace hinged at its upper end to the horizontal portion and its lower ends adapted to be attached to the supporting portion, and means to firmly hold said parts in proper relation to each other when in use, and an antifriction-roll upon the free end of the horizontal portion of the lower bracket on the ladder, whereby the brackets may be firmly attached to the ladder in their proper places before the ladder is raised, and the ladder and attached brackets may be moved from place to place upon the building by the antifriction-roll moving on the building, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 8th day of March, A. D. 1898.

JINKINS W. JONES.

Witnesses:
HENRY CHADBOURN,
L. B. COBB.