No. 808,989. PATENTED JAN. 2, 1906.

T. H. KINGSTON.

PORTABLE STAGING.

APPLICATION FILED APR. 27, 1905.

2 SHEETS—SHEET 1.

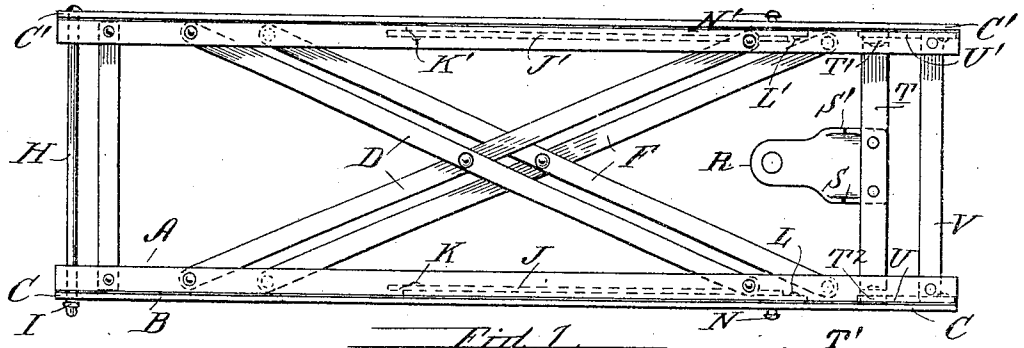


Fig. 1.

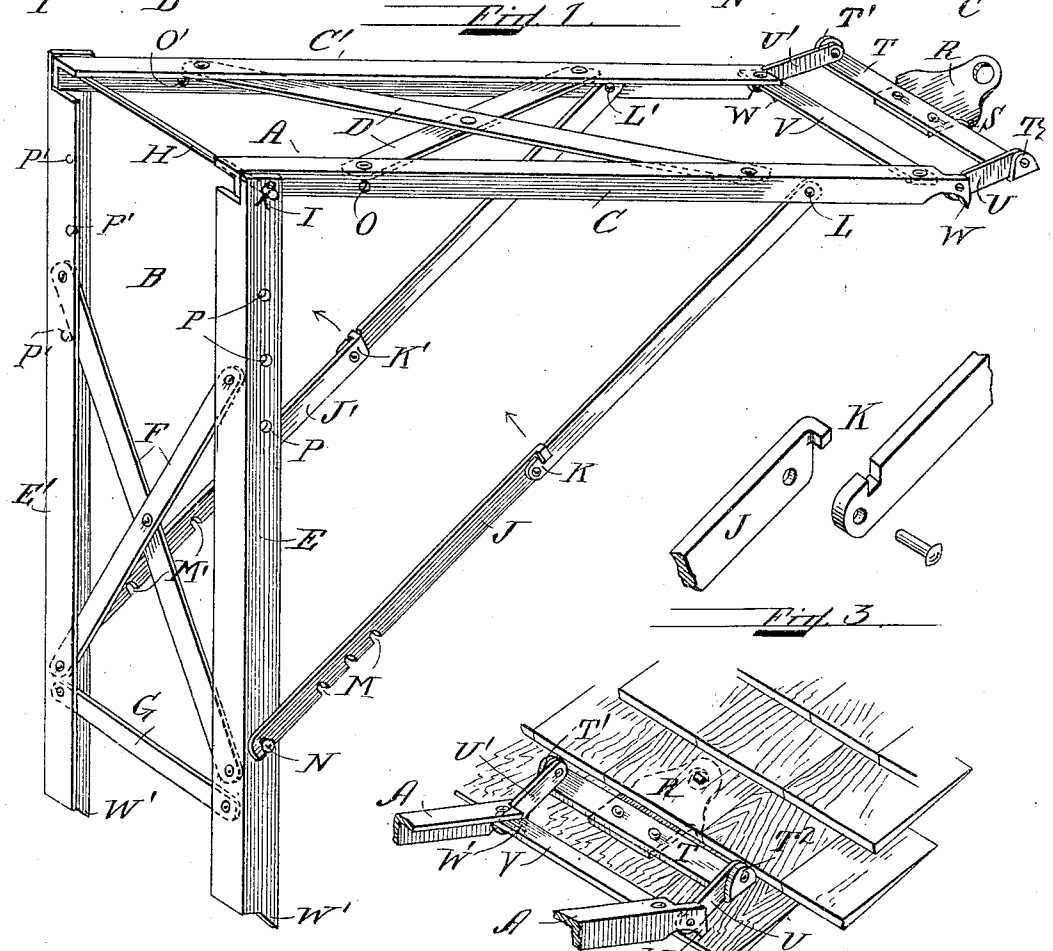


Fig. 2.

Fig. 3.

Fig. 4.

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2 SHEETS—SHEET 2.

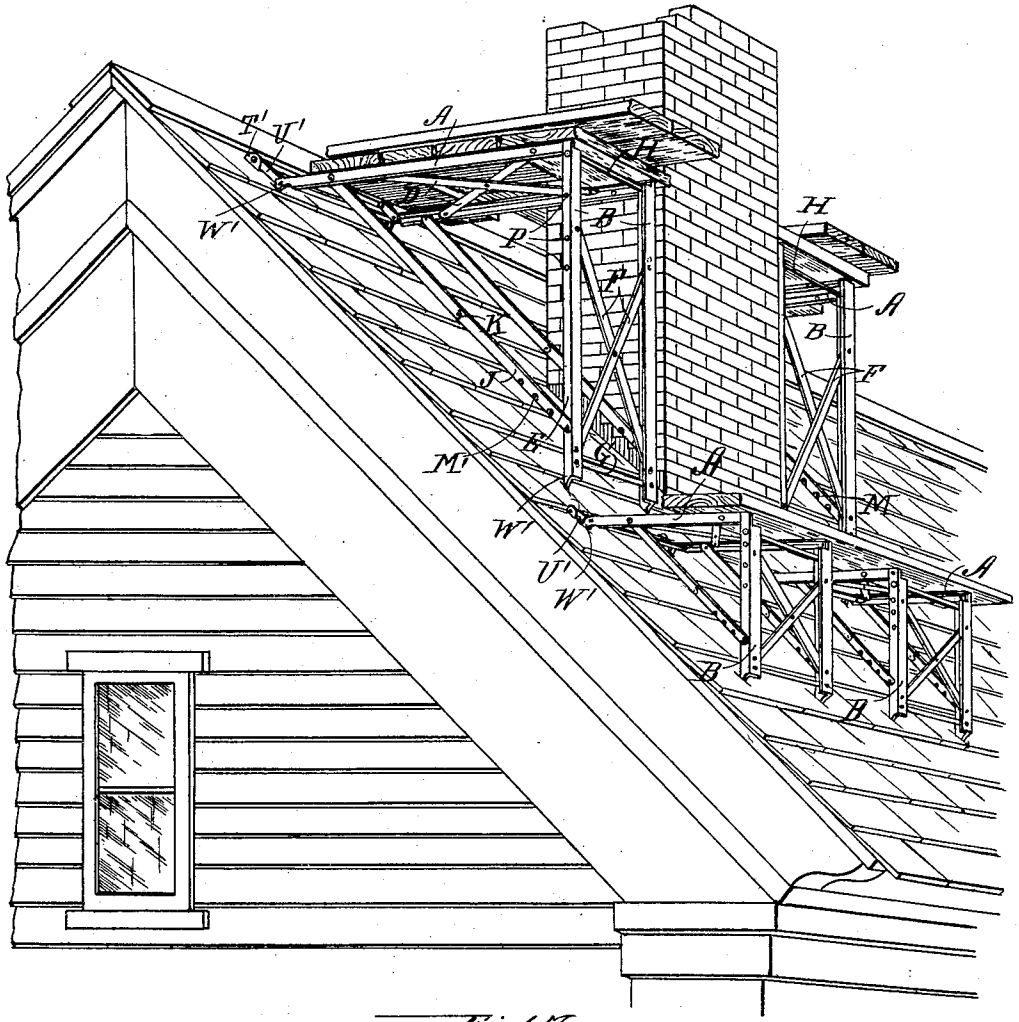


Fig. 7.

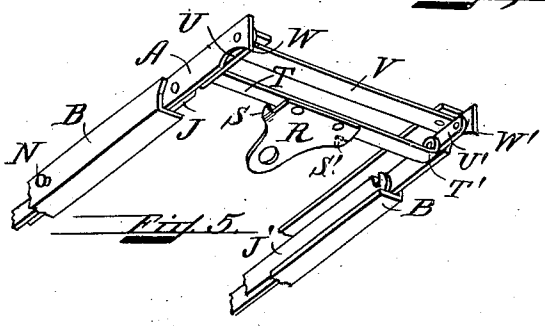


Fig. 5.

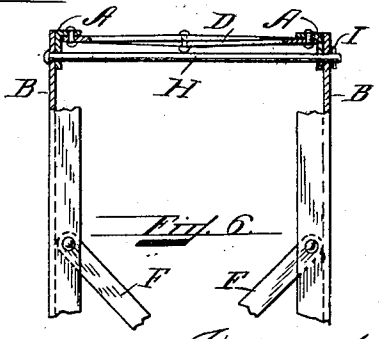


Fig. 6.

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UNITED STATES PATENT OFFICE.

THOMAS HAVLOCK KINGSTON, OF SOMERVILLE, MASSACHUSETTS.

PORTABLE STAGING.

No. 808,989. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed April 27, 1905. Serial No. 257,756.

To all whom it may concern:

Be it known that I, THOMAS HAVLOCK KINGSTON, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Portable Staging for Masons, of which the following is a specification.

My invention relates to a portable staging for the use of masons upon the roofs of buildings in constructing chimneys and repairing the same; and it has for its object to furnish a staging having a light strong portable folding frame readily adjustable to various pitches of roof and that can be expeditiously and cheaply put in place. I attain said object by means of the device hereinafter more fully described, which embodies my said invention and is illustrated in the accompanying drawings, in which—

Figure 1 is a top view of my staging-frame when folded in its most compact form for transportation. Fig. 2 is a perspective of the same as when erected on a roof for practical use; Fig. 3, views in perspective of parts of the folding side braces and their pivotal bolt, showing their adaptation for interlocking and forming a joint. Fig. 4 is a perspective illustrating the manner of attaching the head of the frame to a shingled roof. Fig. 5 is an isometric view showing the head of the frame folded inward, as in Fig. 1, but as seen from the opposite direction or beneath. Fig. 6 is a partial end elevation of the frame, partly in section, showing the method of adjustably connecting the upright and horizontal sections of the frame. Fig. 7 is an illustrative drawing showing in perspective the practical application of the invention to the use for which it is designed.

The frame comprises two main sections A and B, Figs. 1 and 2. Section A is comprised of two horizontal arms C and C′, composed of angle steel and united by a cross-brace D, riveted to the arms C C′, as shown. Section B is comprised of two upright supports E E′, composed of angle steel and united by a cross-brace F and a cross-bar G, riveted to the supports E and E′, as shown. Sections A and B are also adjustably hinged together by a rod H, extended through E′ and C′ and E and C and headed on one end and secured by a split pin I through the opposite end, so that the same may be readily removed to other positions in the arms and supports, as will be explained. The sections A and B are further braced against each other by means of their notched folding braces J and J′, having interlocking ends K K′, pivoted together midway thereof, as shown. The upper ends of these jointed braces are pivoted to the arms C and C′ at L L′, and the notches M M′ in their lower branches lock onto studs N, projecting from supports E and E′. Holes O O′ are drilled in the horizontal arms C C′ equally distant from rod H. Commencing at a point equally distant from rod H three other holes P are drilled at equal intervals from each other through the opposite supports E E′. These holes are so arranged in the arms of the two sections A and B that by changing the rod H from one to the other and correspondingly adjusting the notches M in the braces J from one position to another on their projecting studs N the staging-frame can be readily adapted to any usual variation in the pitch of the roof on which the staging is required to be used. As illustrated in Fig. 2, it is adapted to a pitch of forty-five degrees, the degree of pitch obtained being predetermined by the arrangement of the holes in the supports and the notches in the braces, as shown. What I term the "head" of the frame is composed of a metal fastening-plate R, having spurs S S′, bent downward from the sides thereof, and a hole is punched through the outer end, as shown, through which a spike may be driven, if desired. This plate is riveted to a cross-bar T, which has ears T′ T^2 turned upward on the ends thereof. Links U U′ are pivoted to the ears T′ T^2 and also pivotally connected with the notched ends of arms C and C′ in front of the ends of the cross-bar V. The forward ends of the arms C and C′ are notched to form penetrating points W thereon, and the lower ends of support E and E′ are similarly notched to form points W′.

The practical application of my invention, the details of the construction of which I have now fully described, is clearly illustrated in Figs. 4 and 7 of the drawings. In Fig. 7 frames of different heights are shown as employed together, and such a combination is often very advantageous in expediting the work. The lower one often serves as a convenient platform for the handy deposit of brick and mortar thereon and also serves as a safe step, which greatly facilitates the labor of the tender in depositing his load on the higher frame and economizes his time. These frames, while comparatively light, are stiffly

formed and firmly braced and adapted to safely adhere to the roof under the pressure of their load, which is always much less than their ability to support. Much saving in time and labor is effected by their use in erecting temporary staging, and their durability, convenient portability, and compactness renders them otherwise a very economical invention.

I claim—

1. A portable, folding frame for supporting a temporary roof-staging, comprising the combination of the following parts constructed, arranged, and operated as described, namely: a pair of horizontal platform-arms united by cross-bars and braces firmly riveted thereto: a pair of upright supports united in like manner by cross-bars and braces riveted thereto: a rod extended through and connecting the ends of said platform-arms and upright supports, thus hinging the two sections together: a pair of notched and jointed folding braces pivoted to the platform-arms, and at their opposite ends adjustably interlocked by means of their notches, with suitable studs projecting from the outside faces of the upright supports: and a fastening-plate riveted to a cross-bar having upturned ears connected by pivoted links to the front ends of the platform-arms, said plate being provided with spurs on its under side, and an opening through its body, and by the flexibility of its connections made capable of lying flat against roofs of varying pitch; all as and for the purposes specified.

2. The combination of section A, composed of arms C, C′, formed of angle-steel, and united by cross-braces D, and bar V, riveted to the arms: section B, composed of supports E, E′, of like construction as said arms, and united by cross-braces F, and bar G, riveted thereto, the arms of section A having single holes O, in their sides, and penetrating points W, on their front ends, and the supports of section B having suitably-arranged holes P, P′, in their sides, and penetrating points W′ on their lower ends, and projecting studs N, N′ on their opposite outer faces: adjustable braces J, J′, pivoted to arms at L, L′, and jointed together at K, K′, and having notches M, M′, arranged to interlock with studs N, N′; rod H by which sections A and B are detachably pivoted together, and adjustably united so as to conform to various pitches of roof: and a fastening-plate R, formed with spurs on its under side, and a hole through its body, and being riveted to a movable bar T, which is pivoted at T′ and T^2 to links U, U′, pivoted to the front ends of arms C, C′; all constructed, combined and arranged to operate together substantially in the manner and for the purposes specified.

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