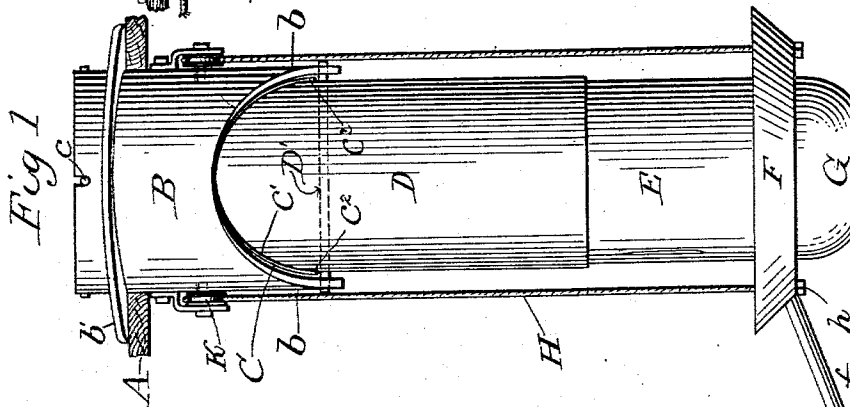
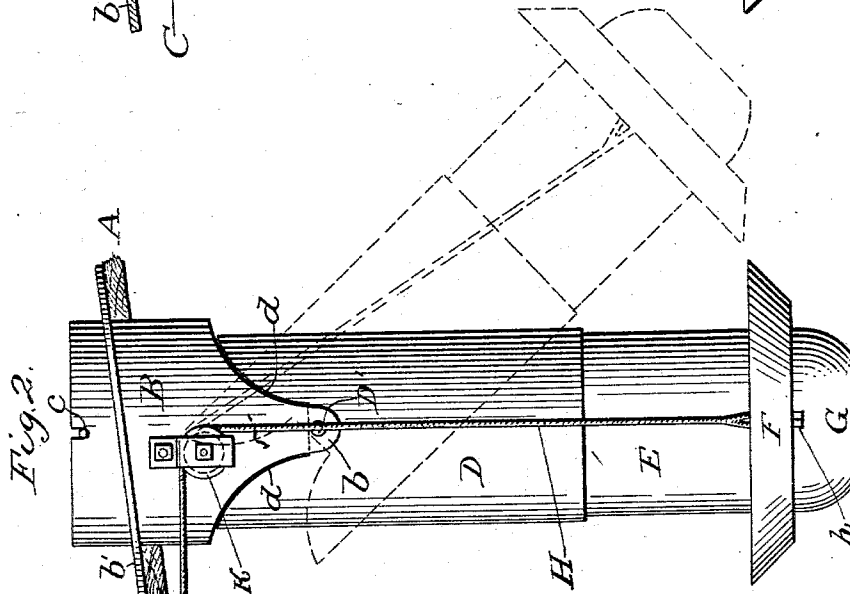
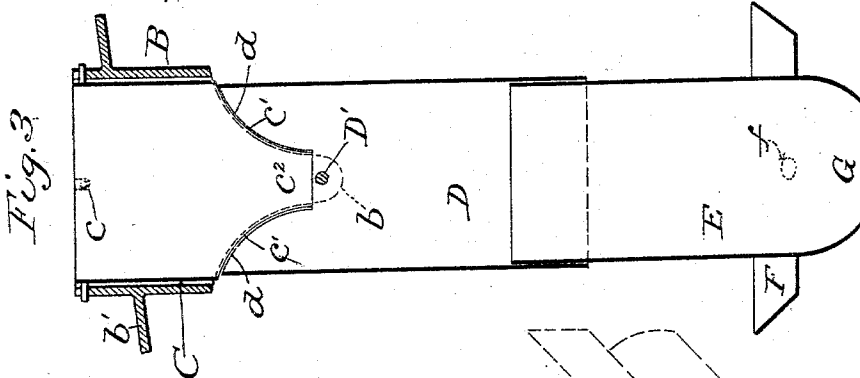


(No Model.)

H. BRUYN.
SMOKE JACK.

No. 548,604.

Patented Oct. 22, 1895.



Witnesses

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HOWARD BRUYN, OF WAVERLY, ASSIGNOR OF ONE-HALF TO JOHN
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SMOKE-JACK.

SPECIFICATION forming part of Letters Patent No. 548,604, dated October 22, 1895.

Application filed April 19, 1895. Serial No. 546,340. (No model.)

To all whom it may concern:

Be it known that I, HOWARD BRUYN, a citizen of the United States, residing at Waverly, in the county of Bremer and State of Iowa, have invented certain new and useful Improvements in Smoke-Jacks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in smoke-jacks for roundhouses; and it consists in the construction and arrangement of parts hereinafter described, and definitely pointed out in the claims.

The aim and purpose of the invention is the provision of an improved jack of the type known as the "vertically adjustable and swinging" jacks, and the prime object is to so construct the jack that objections heretofore existing are overcome.

The object of the invention is attained by the construction illustrated in the accompanying drawings, wherein like letters of reference designate corresponding parts in these several views, and in which—

Figure 1 is an elevation of the jack, showing a section of a roof. Fig. 2 is a similar view taken at right angles thereto, showing the tilted position in dotted lines, and Fig. 3 is a vertical central section of the jack.

In the drawings, A designates a section of roof of a roundhouse or other structure having an opening therein in which is fitted a ventilating-thimble B, projecting above the roof and for a considerable distance below, its lower end being forked or bifurcated, forming the depending arms *b*, oppositely arranged. The thimble is fixed in place by having a flange *b'* thereon resting on the roof. Within the thimble is fixed a pipe C of a diameter less than the inner diameter of the thimble in which it is secured by the lateral lugs *c* on the sides of the pipe projecting over the upper edge of the thimble, and then secured in any suitable manner. By this means an open air-space is formed between the thimble and pipe leading from the interior of the house to the exterior. The upper end of the pipe C is

usually extended above the top of the thimble B, and thimble B' can be extended to any height above the roof. The lower end of the fixed pipe C is cut away at *c'* in a manner substantially that of the lower edge of the thimble, the edges and arms *c'* being parallel with those on the thimble. The cuts in the thimble and pipe are substantially semicircular or in the transverse arc of a semicircle, and are alike on both sides. The lower ends of the arms *c'* terminate above the ends of the arms *b* on the thimble.

D designates the swinging section of the pipe, the same being of a diameter slightly less than that of the pipe. This swinging section has its upper edge cut to conform substantially to the contour of the edges of the sleeve and thimble and in a reverse order—that is to say, the cuts *d* being substantially the shape of the arms *b c'*, and are fitted in or closed to the end of the pipe C.

D' designates a shaft mounted in the ends of the arms *b*, passing through the metal of the swinging section at the apex of the cut-out portion *d*. By the joint thus formed it will be noted that the swinging section is carried by the thimble, which is well secured in place, and by its size may be easily moved to a horizontal position or at any angle between the horizontal and vertical, and in either direction.

E designates the telescopic section of the pipe fitting within the swinging section D. At the lower end of the section E is rigidly secured a drip-flange F, having inclined sides. From the bottom of the flange extends the discharge-pipe *f*, leading laterally out to a point beyond the plane of the track. At the lower extremity of the section E, below the flange, is the ball-shaped or concavo-convex rim G, having a central opening and serving as the mouthpiece for the jack. The curved form of the mouthpiece adapts it to the style and size of locomotive-smokestacks.

To raise or lower the section E, cords or cables H are attached to the eyebolts *h* at the base of the flange F, extended up and passed over suitable pulleys K, mounted on the opposite sides of the thimble. The cables from

the pulleys extend to a remote point and are provided with the usual counter balance-weight. (Not herein shown.)

5 In operation the circulation of air between the thimble and pipe will in a measure prevent condensation, and forms a free exit for smoke and vapor arising to the roof. All moisture that runs down the side of the pipes will be led into the drip-flange and from
10 thence conducted beyond the locomotive. As the locomotive approaches, the jack is raised by the stack coming in contact with the ball, which latter settles directly over the opening in the stack.

15 The peculiar form of mouthpiece enables the jack to be used with large or small mouthed stacks, and forms a close joint, so that all exhaust and smoke will be carried out of the house.

20 The swinging feature is that common to this class of jacks, with the exception of the feature of making the swinging extension slightly smaller than the type proper, which permits the jack to swing freely without its
25 edge coming in contact with the pipe, and at the same time forms a close joint when the jack is in its vertical position.

It will be noted that by the use of the bail mouthpiece the jack can be used when at a considerable angle to the stack. 30

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In a smoke jack, the combination with a thimble, fixedly secured on a suitable support, and having downwardly extending arms at opposite sides, a pipe of a diameter less than the interior diameter of the thimble, passing through the thimble, and fixedly supported therein, to form a passage between the
35 same and thimble, a swinging pipe section of a diameter less than that of the first-mentioned pipe, a shaft passing through the thimble arms and the upper end of the swinging section, a telescopic pipe section, having a
40 curved contracted mouth and drip flange, and means for adjusting the telescopic section, substantially as described. 45

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

HOWARD BRUYN.

Witnesses:

W. WEIDITSCHKA,

J. E. SULLIVAN.