

(No Model.)

N. H. SMITH.
STACK BLOWER ATTACHMENT.

Patented Oct. 20, 1896.

No. 569,804.

Fig. 1.

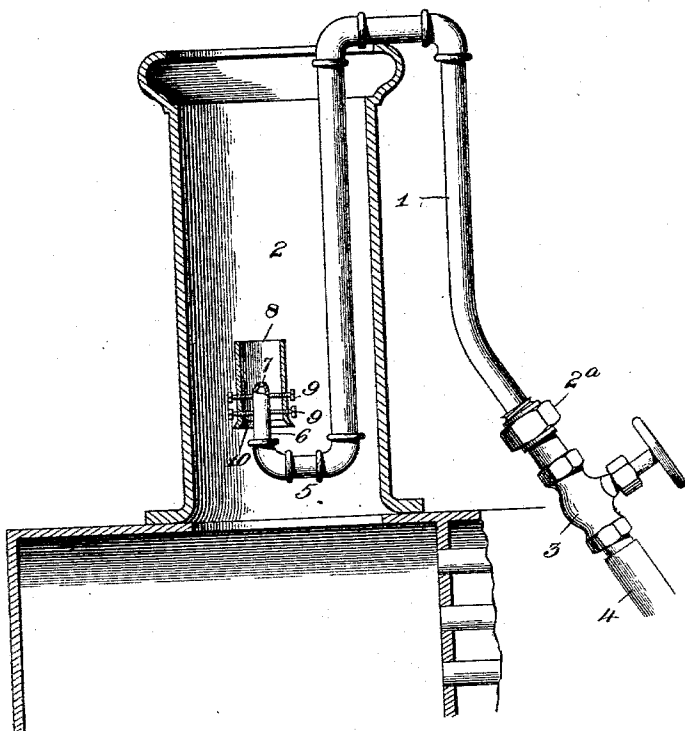
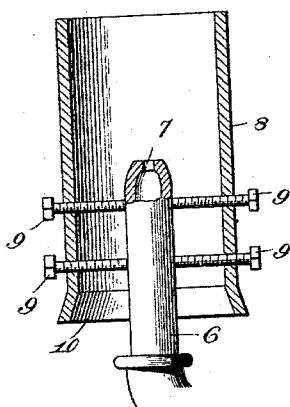


Fig. 2.



Inventor

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Witnesses

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NORBOURN H. SMITH, OF BRISTOL, TENNESSEE.

STACK BLOWER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 569,804, dated October 20, 1896.

Original application filed October 25, 1894, Serial No. 526,972. Divided and this application filed September 3, 1895. Serial No. 561,321. (No model.)

To all whom it may concern:

Be it known that I, NORBOURN H. SMITH, a citizen of the United States, residing at Bristol, in the county of Sullivan and State of Tennessee, have invented a new and useful Stack Blower Attachment, of which the following is a specification.

This invention relates to blower attachments for locomotive smoke-stacks, and is designed for use in connection with fire-kindling apparatus for kindling the fires of locomotive-boilers without the use of wood.

The main and primary object of the present invention is to provide a stack blower attachment adapted to be brought into use immediately after the fire of a locomotive-boiler has been started, and which will produce a sufficient suction or draft within the smoke-stack to accelerate the natural draft of the fire and complete the work of the kindling apparatus by causing the fire to burn quickly and naturally.

The subject-matter of this application forms a divisional application of allowed application Serial No. 526,972, filed October 25, 1894; and the invention is hereinafter fully illustrated, described, and claimed.

In the drawings, Figure 1 is a detail elevation, partly in section, of a stack blower attachment constructed in accordance with this invention and illustrated as fitted in position on a smoke-stack of a locomotive-boiler. Fig. 2 is an enlarged detail sectional view of the end of the attachment that is disposed within the stack.

Referring to the accompanying drawings, the numeral 1 designates an inverted-U-shaped blower-pipe that is adapted to be temporarily supported on the upper edge of the smoke-stack 2 of a locomotive-boiler, as clearly illustrated in Fig. 1 of the drawings. As thus arranged one depending side portion of the inverted-U-shaped pipe 1 is disposed outside of the stack and is adapted to have detachably connected to its lower end an ordinary union-coupling 2^a, which serves to connect with the pipe 1 a valve-coupling 3, having connected with one end thereof a flexible air-hose 4. The flexible air-hose 4 connects with a suitably-located air-pipe that provides

means for forcing air under pressure into and through the inverted-U-shaped blower-pipe 1.

By reason of supporting the inverted-U-shaped pipe 1 astride of the upper edge of the stack 2, one depending side portion of said pipe also extends down within the stack 2 and is provided at its lower end with an offstanding portion 5, having an upwardly-disposed jet-nipple 6. The jet-nipple 6 is provided in its upper end with a small jet-opening 7, through which the air is forced under pressure, and the said upwardly-disposed nipple 6 is adapted to be arranged within a larger suction-sleeve 8, which is not only of a greater diameter than the nipple 6, but is also of a greater length than the same and extends a distance above the upper extremity of the nipple. The larger suction-sleeve 8, which surrounds and extends above the nipple 6, is removably supported on the nipple by means of a series of set-screws 9, passed through the sides of the sleeve and impinging on the nipple. The sleeve 8 is provided with a lower flared end 10 and is sufficiently large to allow a free circulation of air around the nipple, so that when the air is forced out of the nipple under pressure a partial vacuum will be created within the sleeve 8, thereby producing a sufficient suction or draft within the stack to accelerate the natural draft of the fire and cause the latter to burn quickly and naturally after the same has been kindled preferably by a kindling apparatus of the character such as set forth in the allowed application hereinbefore referred to.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

A temporary blower attachment for smoke-stacks, comprising a blower-pipe constructed in substantially a U shape and adapted to be placed astride of the upper edge of a smoke-stack with the upper portion of the pipe resting directly on said upper edge of the stack, whereby the pipe will be temporarily sup-

ported in a proper position with relation to the stack, the depending side portion of the pipe within the stack being provided at its lower end with an upturned jet device, and
5 the outer depending side portion of the pipe being provided at its lower end with a coupling for the attachment of an air-supply pipe or hose, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

NORBOURN H. SMITH.

Witnesses:

H. L. DAW,

J. BUNTING, Jr.