(No Model.)

T. H. BOLTE.

SMOKE STACK.

No. 345,664. Patented July 20, 1886.

Fig. 1.

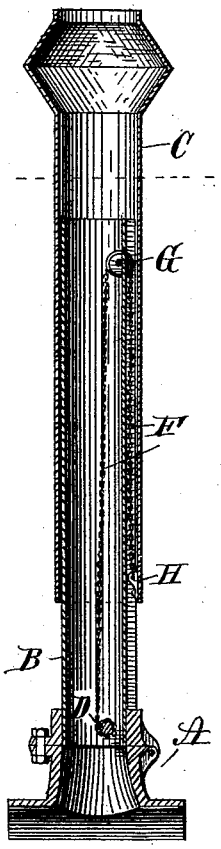
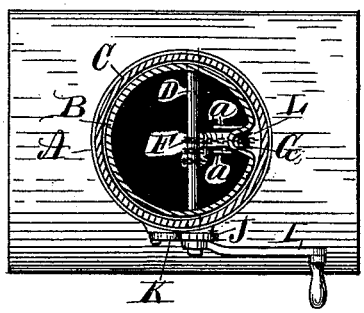


Fig. 2



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THEADORE H. BOLTE, OF COLUMBUS, WISCONSIN.

SMOKE-STACK.

SPECIFICATION forming part of Letters Patent No. 345,664, dated July 20, 1886.

Application filed March 3, 1886. Serial No. 193,826. (No model.)

To all whom it may concern:

Be it known that I, THEADORE H. BOLTE, of Columbus, in the county of Columbia and State of Wisconsin, have invented new and useful Improvements in Smoke-Stacks; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in smoke-stacks for portable engines.

The object of my improvements is to provide a smoke-stack which may be lengthened out and extended to such length as may be desired to increase the draft or control the escape of sparks when in use, and may be contracted and shortened for greater convenience and safety when being moved from place to place.

My improvements are explained by reference to the accompanying drawings, in which Figure 1 represents a longitudinal vertical section thereof, and Fig. 2 represents a cross-section showing one form of device for extending and contracting the smoke-stack.

Like parts are represented by the same reference-letters in both views.

A represents the supporting-base of the smoke-stack, which is connected to the boiler in the ordinary manner.

B is the lower interior section of the smoke-stack. The section B is rigidly affixed to the base A. The section B may be nearly or quite as long as the ordinary smoke-stack to portable engines.

C is a movable section of the stack, which is nicely fitted to section B, and its length may be equal or greater than that of section B, whereby it is obvious that by extending the part C the smoke-stack may be increased to nearly or quite double its original length, thereby increasing the draft of the smoke-stack and better controlling the escape of sparks.

For the purpose of transporting the engine from place to place it becomes necessary to lower the part C, so that it will be less liable to become broken or injured. I have shown one form of device for raising and lowering the movable section C, which device consists of a shaft, D, having bearings in the apertures E E, formed in the stationary section B, chain F, attached at one end to said shaft D, passing from this upwardly and over the pulley G, which pulley has its axle-bearings at the upper end of the stationary section B in the inwardly-projecting lugs *a a*. From the pulley G the chain extends downward and is attached to the lower end of the movable section C in the eyelet H. To one end of the shaft D is attached a crank, I, and a ratchet-wheel, J. The ratchet-wheel J is provided with a pawl, K, which is pivoted to the base A. One side of the section B is provided with a groove, L, for the reception of the outer end of the chain F.

The smoke-stack is lengthened as follows: When the shaft D is turned forward by the crank I, the chain is wound upon it, and thus as one end is drawn around the shaft the other end is drawn up toward the pulley G, over which it passes. The pawl and ratchet prevent the shaft from being turned back by the the gravity of the section C. Thus said section C is retained at any point to which it is adjusted. By a reverse movement of the crank the section C may be lowered.

I am aware that additional upper lengths have been attached upon the inside of the lower length of a smoke-stack, in which case the hoisting cables or chains, the pulleys and a windlass, and a windlass-frame are all located upon the outside of the smoke-stack, and it is obvious that they are thus exposed to the elements, they present a bad appearance, and rain and snow are liable to be caught in descending by the outer lower sections of the stack, while by my form of stack the lower section of the stack serves as the frame of the winding-shaft, and all the cables and pulleys are obscured from view and protected from the elements within the stack, and it is impossible for the descending rain or snow to flow into the stack.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a sectional smoke-stack, the combination of the lower section, B, winding-shaft D, supported at its respective ends in said sec-

tion, which serves as a frame therefor, pulley G, attached to the upper end of said inner section, chain F, attached at one end to said winding-shaft and at the other end to the said movable outer section, C, and outer section, C, arranged upon the outside of said lower section, said winding-shaft being provided with winding and retaining mechanism, all substantially as and for the purpose specified.

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

THEADORE H. BOLTE.

Witnesses:
JAS. B. ERWIN,
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