T. E. HUFFMAN & I. E. HAMMETT.

STACK PIPE PROTECTOR.

APPLICATION FILED APR. 6, 1910.

972,378. Patented Oct. 11, 1910.

Fig. 1.

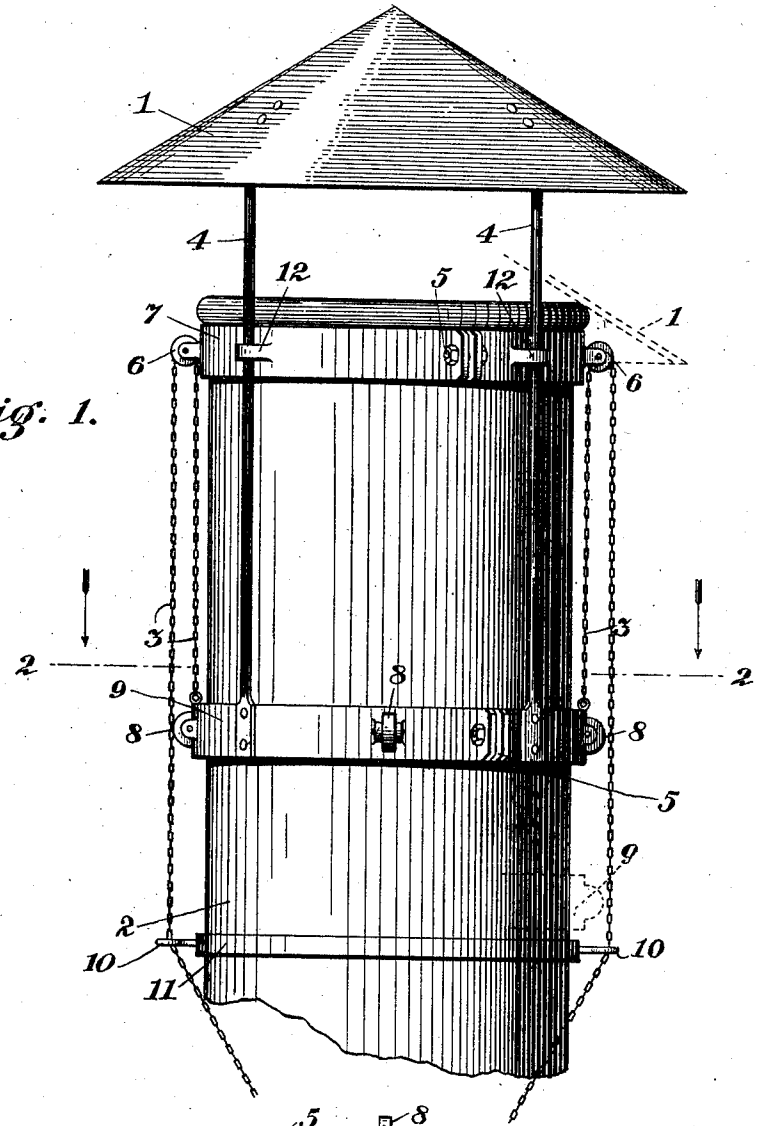
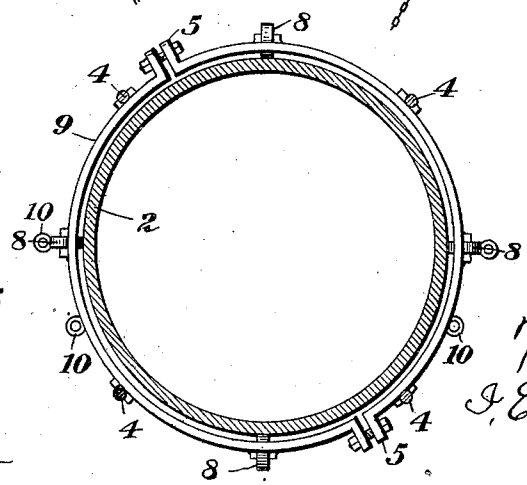


Fig. 2.



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UNITED STATES PATENT OFFICE.

THADEUS E. HUFFMAN AND ISAAC E. HAMMETT, OF HAMLIN, TEXAS.

STACK-PIPE PROTECTOR.

972,378. Specification of Letters Patent. **Patented Oct. 11, 1910.**

Application filed April 6, 1910. Serial No. 553,840½.

To all whom it may concern:

Be it known that we, THADEUS E. HUFFMAN and ISAAC E. HAMMETT, citizens of the United States, residing at Hamlin, in the county of Jones and State of Texas, have invented certain new and useful Improvements in Stack-Pipe Protectors, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to protecting caps for stack pipes and has for its object to provide means whereby the cap may be adjusted upon the upper end of the stack to regulate the draft in accordance with atmospheric conditions.

Another object of our invention resides in the provision of a simple and easily operated protecting cap which will prevent the entrance of rainwater to the interior of the stack, thus reducing to a minimum the formation of scale thereon caused by corrosion.

A further object of the invention is to provide a protecting cap adjustably mounted upon the upper end of the stack pipe and means whereby the same may be adjusted from the ground.

With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the upper end of a stack pipe, showing our improved protecting cap arranged thereon; and Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Referring more particularly to the drawing 1 indicates the protecting cap which may be of any desired size and form, said cap forming no part of the present invention. The cap 1 is movably supported above the upper open end of the stack pipe by means of a plurality of rods 4, the upper ends of which are disposed against the under face of the cap 1 and secured thereto by means of rivets, bolts or other analogous fastening devices. While any desired number of supporting rods 4 may be employed, we preferably use 4 of the same and arrange them at diametrically opposite points. A band 7 is rigidly clamped upon the upper end of the stack 2 immediately beneath the beaded edge thereof. This band is formed in two semicircular sections which are adapted to be secured together upon the stack by means of the fastening bolts 5. Guide lugs 12 are formed upon the band 7 and through these guide lugs the rods 4 are movably disposed. Pulleys 6 are mounted upon the band sections for a purpose which will more fully hereinafter appear. A band 9 of similar construction to the band 7 is also arranged upon the stack pipe 2 for longitudinal movement. The band 9 has a plurality of rollers 8 mounted therein which engage with the periphery of the stack 2 whereby the band may be moved upon the stack with a minimum amount of friction. A band 11 is rigidly secured upon the stack pipe below the movable band 9 and guide eyes 10 are secured thereto at diametrically opposite points. Through these eyes the operating chains 3 are movably disposed. The chains 3 extend over the pulleys or rollers 6 mounted upon the stationary band 7 and then downwardly and are secured to the sections of the movable band 9. The ends of these chains are joined together and attached to a wire or rod, (not shown) by means of which the device may be conveniently operated from an engineer's cab or the ground.

In the operation of our invention, the protecting cap may be raised or lowered above the stack pipe 2 by pulling upon the operating chains or releasing the same whereby they are moved around the rollers or pulleys 6. When the engine is not in use, the open end of the stack may be completely closed by lowering the cap 1 to the position illustrated in dotted lines in Fig. 1 of the drawing, said cap resting upon the beaded circumscribing upper edge of the stack pipe. The entrance of rain water into the stack is thereby rendered impossible and the accumulation of corrosive scale upon the inner wall of the stack effectually obviated. The weight of the cap itself is sufficient to hold the same in its closed position on the stack. By pulling upon the operating chains, the protecting cap may be lifted to any extent to regulate the draft in accordance with the dimensions of the stack pipe. By the provision of the anti-friction rollers 8, wear upon the stack pipe is to a great extent eliminated and an easy sliding movement of the annular band 9 is obtained. It will further be obvious that owing to the close arrangement of the supporting rods, the bands and the operating chains upon the stack pipe, the increase of air pressure resulting from the use of our invention, is immaterial. When the engine is not in use, our adjustable protecting cap

affords protection not only for the stack pipe but also for the interior of the boiler shell and the various flues.

The invention is comparatively simple in construction and may be easily and quickly arranged on the ordinary stack pipe. It is also very durable and highly efficient in practical operation.

While we have shown and described the preferred construction and arrangement of parts, it will be understood that the device is susceptible of a great many minor modifications within the scope of the claims without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. The combination with a stack pipe, of a protecting cap arranged above the same, rods secured to said cap, guide lugs on the stack for said rods, an annular band movable upon the stack pipe, the lower ends of said rods being secured to said band, and operating means connected to said band to move the same to adjust the protecting cap.

2. The combination with a stack pipe, of a protecting cap adjustably arranged above the same, a plurality of rods secured to said cap and extending upon the sides of the stack pipe, guide lugs arranged on the pipe, said rods being movably disposed through the lugs, an adjustable band movable upon the stack pipe, anti-friction rollers carried by the band engaged with the periphery of the pipe, pulleys arranged on the upper end of the pipe at diametrically opposite points, and operating chains extending over said pulleys and connected to said movable band to adjust the protecting cap.

3. The combination with a stack pipe, of a protecting cap adjustable above the same, a plurality of supporting rods for said cap, a band rigidly secured upon the pipe at its upper end, a plurality of guide lugs formed on the band, said supporting rods being movable through the lugs, pulleys mounted on said band at diametrically opposite points, an adjustable band movable upon the stack pipe, the lower ends of said rods being secured to said band, a plurality of anti-friction rollers carried by said band engaged with the stack pipe, guide eyes arranged upon the pipe at diametrically opposite points below the movable band, and operating chains extending through said guide eyes and over said pulleys on the first named band, the ends of said chains being secured to the movable band to move the same and adjust the protecting cap.

In testimony of which witness our hands this the 26 day of March A. D. 1900.

T. E. HUFFMAN.
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Witnesses:
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