

(No Model.)

F. P. BENJAMIN.
LANTERN.

No. 420,713.

Patented Feb. 4, 1890.

Fig. 2.

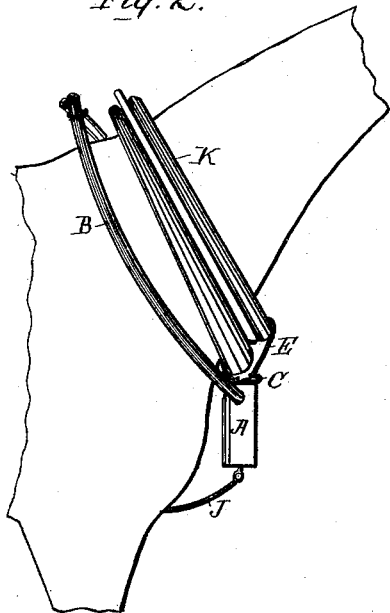


Fig. 1.

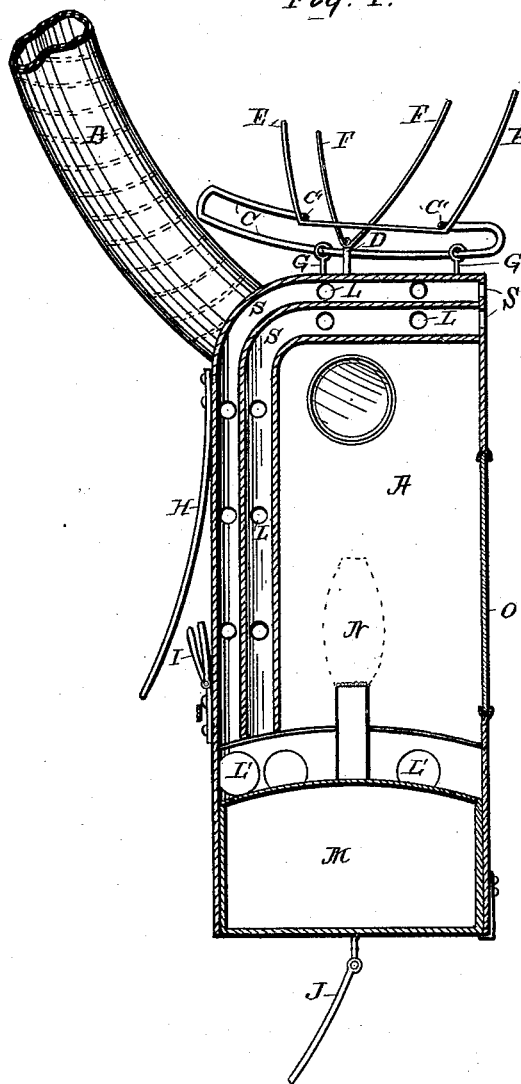
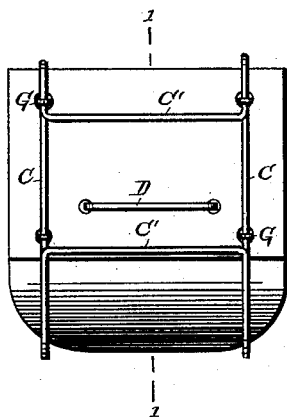


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK P. BENJAMIN, OF NEW YORK, N. Y.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 420,713, dated February 4, 1890.

Application filed April 10, 1889. Serial No. 306,745. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. BENJAMIN, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Lanterns, of which the following is a description in such full, clear, precise, and exact terms as will enable any one skilled in the art to which my invention appertains to make and use the same, reference being had to the annexed drawings, making part of this specification, and to the letters of reference marked thereon.

Similar letters indicate corresponding parts in all the figures of drawings.

The object of my invention is to provide a lantern which may be readily attached to a horse, preferably upon its breast, constructed in such a manner that it will not burn the horse or injure the harness.

In the annexed drawings, Figure 1 represents a vertical section through the lantern on the lines *l l*, Fig. 3. Fig. 2 shows the lantern attached to the collar on the breast of the horse, and Fig. 3 shows a top view of the lantern illustrated in Fig. 1.

The following is a description of a lantern and the manner of attachment shown in the accompanying drawings, which is the form in which I now prefer to employ the invention designated by the claims concluding this specification.

Referring to Fig. 1, A is a lantern, and O the transparent front of the same.

M is an oil-well, and N the flame.

S S are ventilating-tubes, having the apertures L, through which the air enters, and the apertures S' S', through which the air leaves.

G G are staples attached to the top of the lantern.

C C are curved rods passing through the staples G G. These curved rods C C have cross-bars C' C', (see Fig. 3,) under which a strap E passes and by means of which the lantern may be attached to the collar K. When these curved rods are used, the lantern is kept horizontal as well when the horse is ascending or descending a hill as when it is traveling on level ground.

Instead of using the curved rod C, the lantern may be attached to the collar by means of a staple D and strap F.

H is a strap, and I a buckle, by means of which the lamp may be, if desired, secured to a dutch collar.

B B are tubes extending up on the horse's neck and terminating above his back and furnish an exit for the air, which enters through the draft-holes L' I' at the bottom of the lantern. The object of these long draft-tubes is to prevent the hot air burning the horse or injuring the harness, and they may be of any suitable shape and disposed in any suitable manner to accomplish this object without departing from the principle or scope of my invention. These flues may be made of any suitable material—such as leather or canvas—and, if desired, they may be made of an asbestos or other non-conducting lining, and a spiral wire or rings may be placed at intervals along their length to keep them in shape and prevent collapsing. The lantern may also be incased in a non-conducting covering to prevent the escape of heat.

J is a strap passing between the fore legs of the horse and attached to the girth to restrain the lantern's motion.

Many modifications may be made in the device described without departing from the spirit of my invention or the scope of the claims concluding this specification.

Having thus described some of the forms in which my invention may be embodied, I will now designate the principal features which I desire to protect by these Letters Patent—

1. The combination, with a lantern and means for attaching it at the breast of a horse, of a flue projecting from the lantern so as not to discharge the hot air against either the horse or its harness, substantially as described.

2. The combination of a lantern and curved rods attached to a horse or its harness for keeping the lantern level, substantially as described.

3. The combination, with a lantern and means for attaching it to a horse, of a flexible flue, substantially as described.

4. The combination, with a lantern and means for attaching it to a horse, of a flexible flue provided with strengthening-ribs, substantially as described.

5. The combination, with a lantern and

means for attaching it to a horse or its harness, of a flue the walls of which are in whole or in part composed of a non-conducting material, substantially as described.

- 5 6. The combination, with a lantern and means for attaching it to a horse at its breast, of a curved flue for preventing the hot air

being discharged against either the horse or its harness, substantially as described.

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