

(No Model.)

2 Sheets—Sheet 1.

E. S. PIPER.
SIGNAL LANTERN.

No. 428,946.

Patented May 27, 1890.

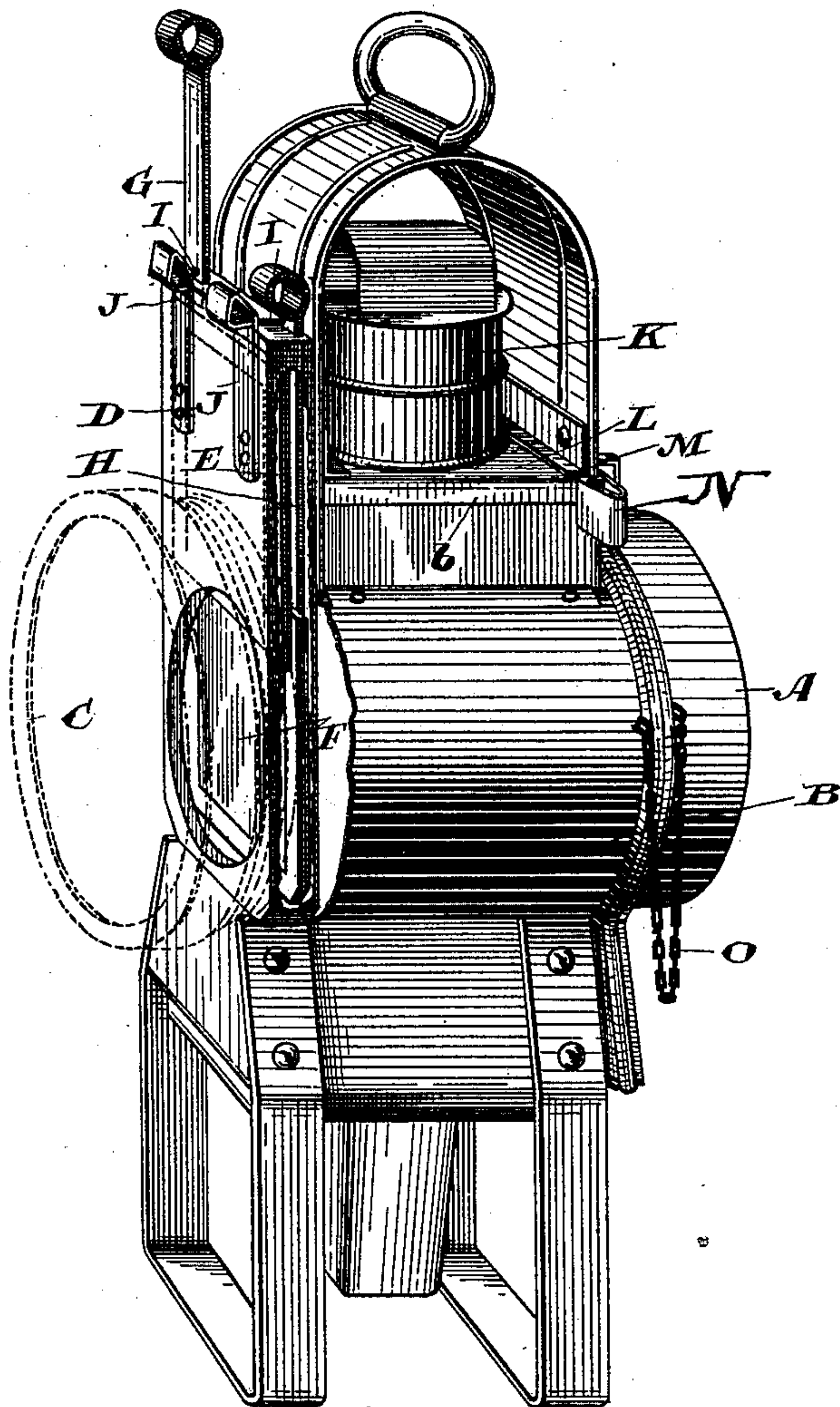


Fig. 1.

Witnesses.

L. B. Fetherstonhaugh

H. G. McMillan

Inventor:

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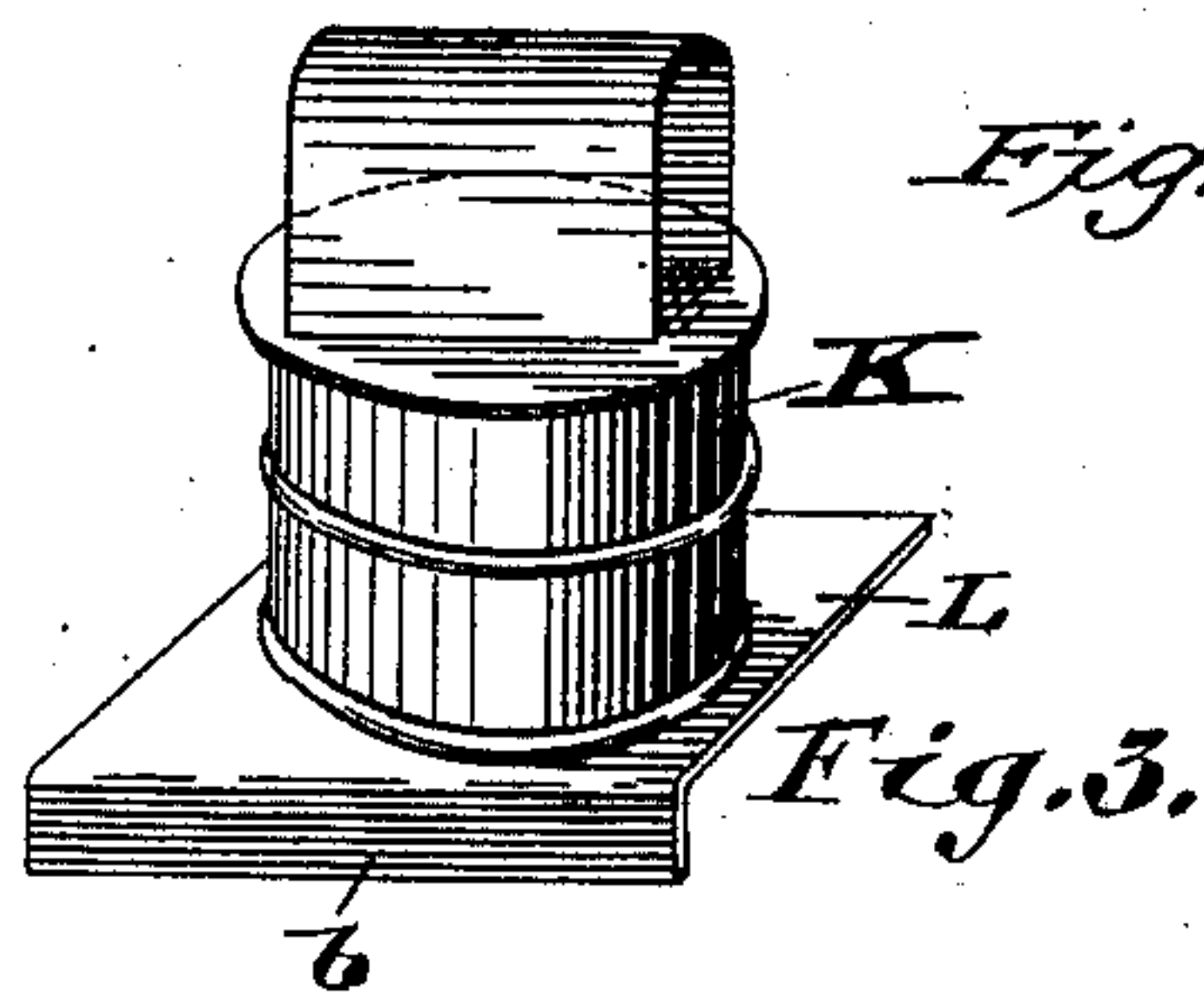
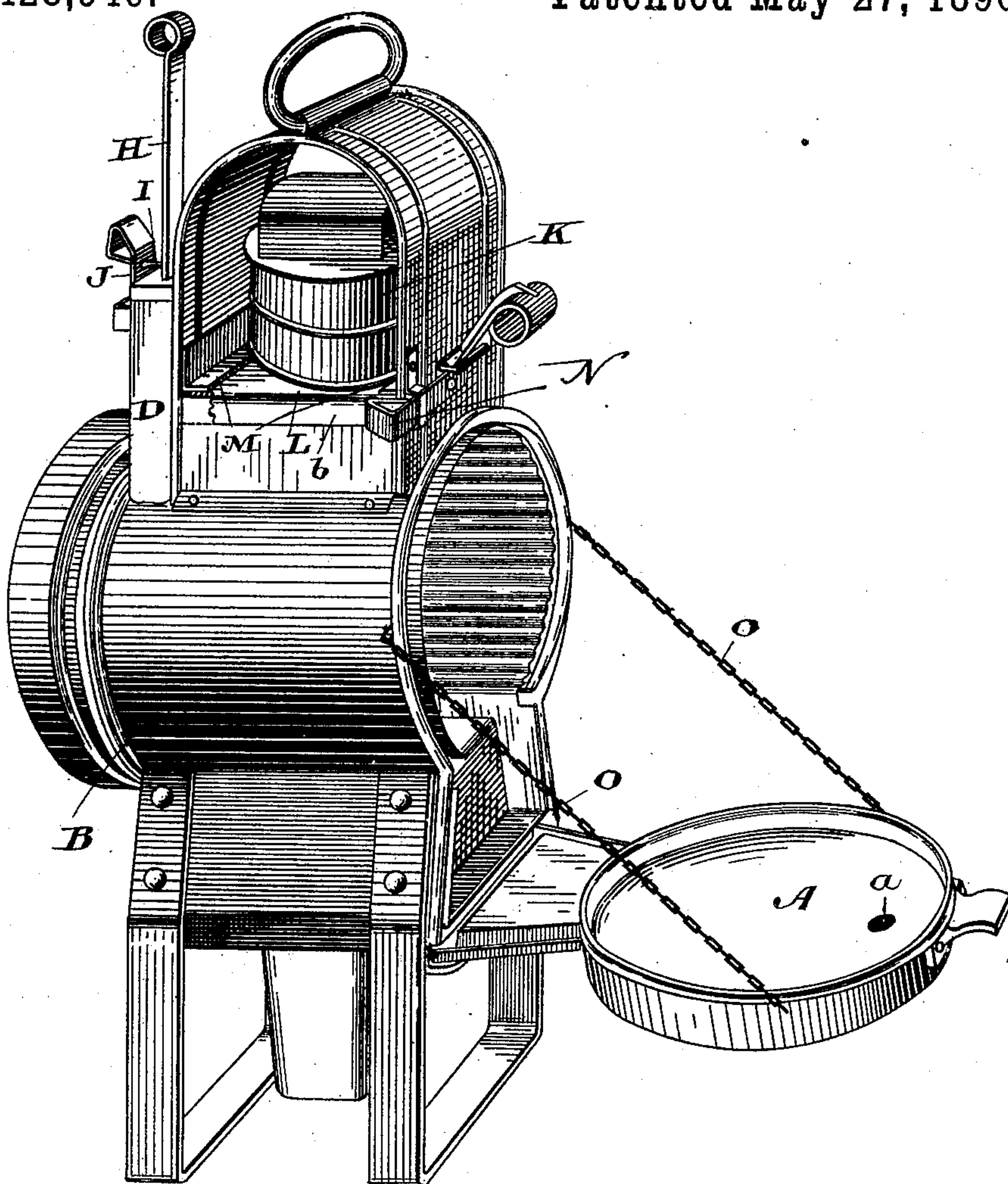
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Witnesses.
J. B. Fehunhaugh.
H. S. Mcmillan

Inventor
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UNITED STATES PATENT OFFICE.

EDWARD SPENCER PIPER, OF TORONTO, ONTARIO, CANADA.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 428,946, dated May 27, 1890.

Application filed March 11, 1889. Serial No. 302,760. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SPENCER PIPER, manufacturer, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented a certain new and useful Improvement in Signal-Lamps, of which the following is a specification.

My invention relates to improvements in signal-lamps, and has for its object the provision of an efficient and inexpensive lamp; and the invention consists in certain novel features of construction and adaptation of parts, substantially as hereinafter described and claimed.

It also consists of a plate carrying the top of the lamp and designed to slide into guides formed in the lamp-case.

It also consists in connecting the hinged door or back of the lamp to the lamp-case by means of chains, substantially as shown.

Figure 1 is a perspective front view of a signal-lamp, partially in section, containing my improvements. Fig. 2 is a perspective back view of a signal-lamp containing my improvements, with its hinged door thrown open. Fig. 3 is a detail of the removable top.

In the class of signal-lamps to which my improvements are applied, the bull's-eyes are made opposite to each other and are of different colors, and the signal is changed by simply turning the lamp so as to expose the particular color in the direction it is desired to signal. When the lamp is set in front of a locomotive so as to give the danger-signal, the white or clear glass faces the engineer, and the light thus reflected in his face seriously interferes with his proper sight of the road in front of his engine.

In my improved lamp I dispense with one bull's-eye and substitute for it a back or door A, which is hinged to the lamp-case B, as indicated. This door, when closed, effectually cuts off the rear view of the light, which can only be seen by the engineer from his place on the locomotive through a small hole *a*, which hole is made just large enough to enable the engineer to see that the light in the

lamp is burning. Immediately behind the bull's-eye C (which is only shown in dotted lines in Fig. 1) I form a guide D; or when the lamp is constructed as shown in the drawings I make a double guide to hold two glasses E and F, E being red and F green.

G is a rod connected to the glass E, and H is a rod connected to the glass F. As shown in Fig. 1, the glass E is raised and the glass F lowered, the latter being in front of the light in the lamp, so that the green or caution signal is exposed. The red glass E is held up by a pin I, attached to a spring J, and extending into a hole made in the rod G, as indicated.

When it is desired to show the white signal, the glass F is raised and held in the same manner as the glass E. From this description it will be noticed that the character of the signal may be instantly changed without turning the lamp. The top K is connected to the plate L, which plate is designed to slide into the guides M, connected to the lamp-case B, as indicated. The plate L has a flange *b* formed on it, and is held in position by the spring-catch N, as shown. Chains O are connected at one end to the lamp-case B and at the other end to the door A, so as to support the said door and relieve its hinge from strain when the door is open, as indicated in Fig. 2.

The advantage in forming the lamp-case with the guides M and the top with plate to slide in said guides is that said top may be readily and quickly removed and replaced when found necessary, and the spring-catch will effectually retain the top in position.

What I claim as my invention is—

The top K, secured to the plate L and adjustably fitted into the guides M, in combination with the spring-catch N, substantially as and for the purpose specified.

Toronto, February 28, 1889.

EDWARD SPENCER PIPER.

In presence of—

CHARLES C. BALDWIN,
CHAS. H. RICHES.