

(No Model.)

J. KIRBY, Jr.

HEAD LIGHT FOR LOCOMOTIVES.

No. 268,027.

Patented Nov. 28, 1882.

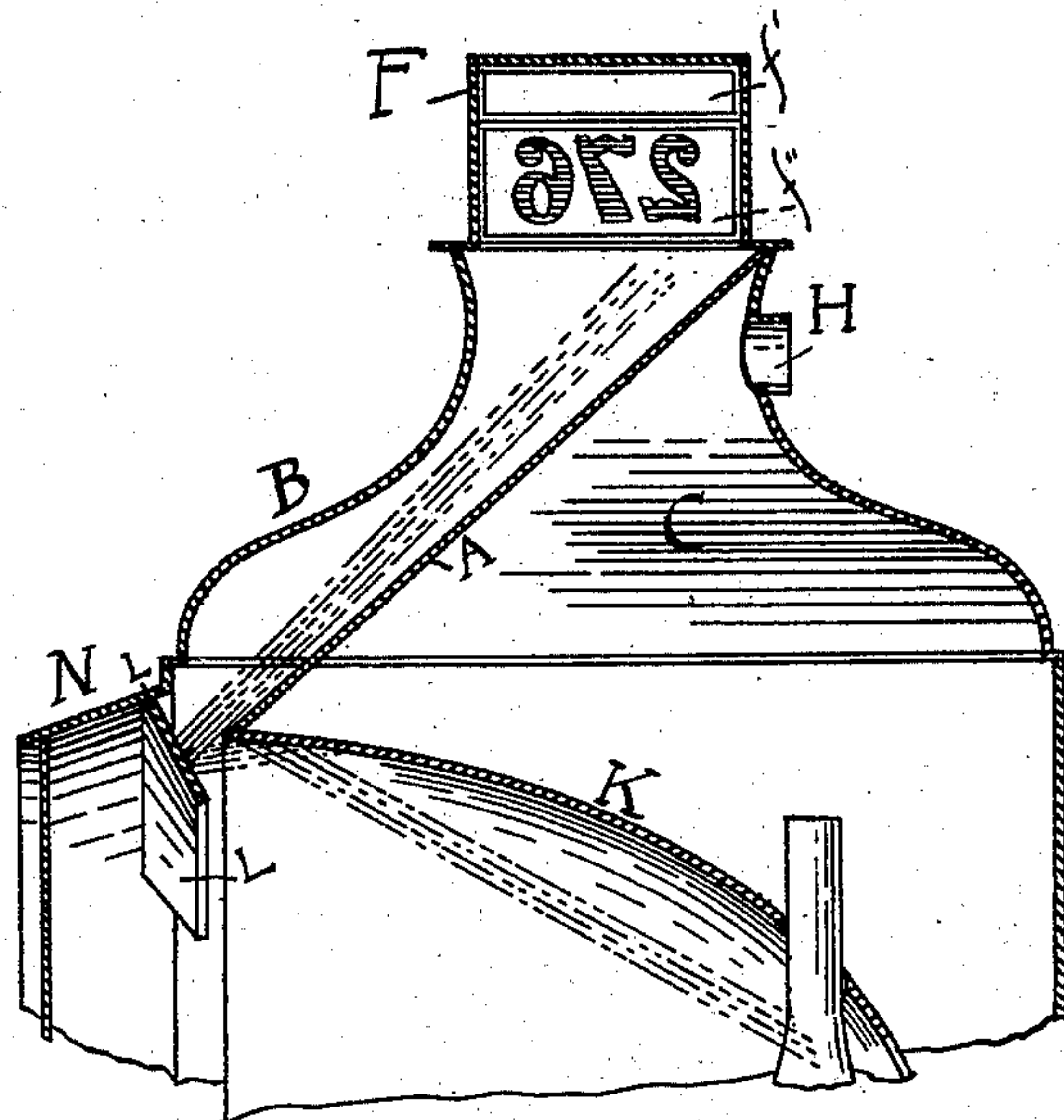


Fig. 1

Fig. 3

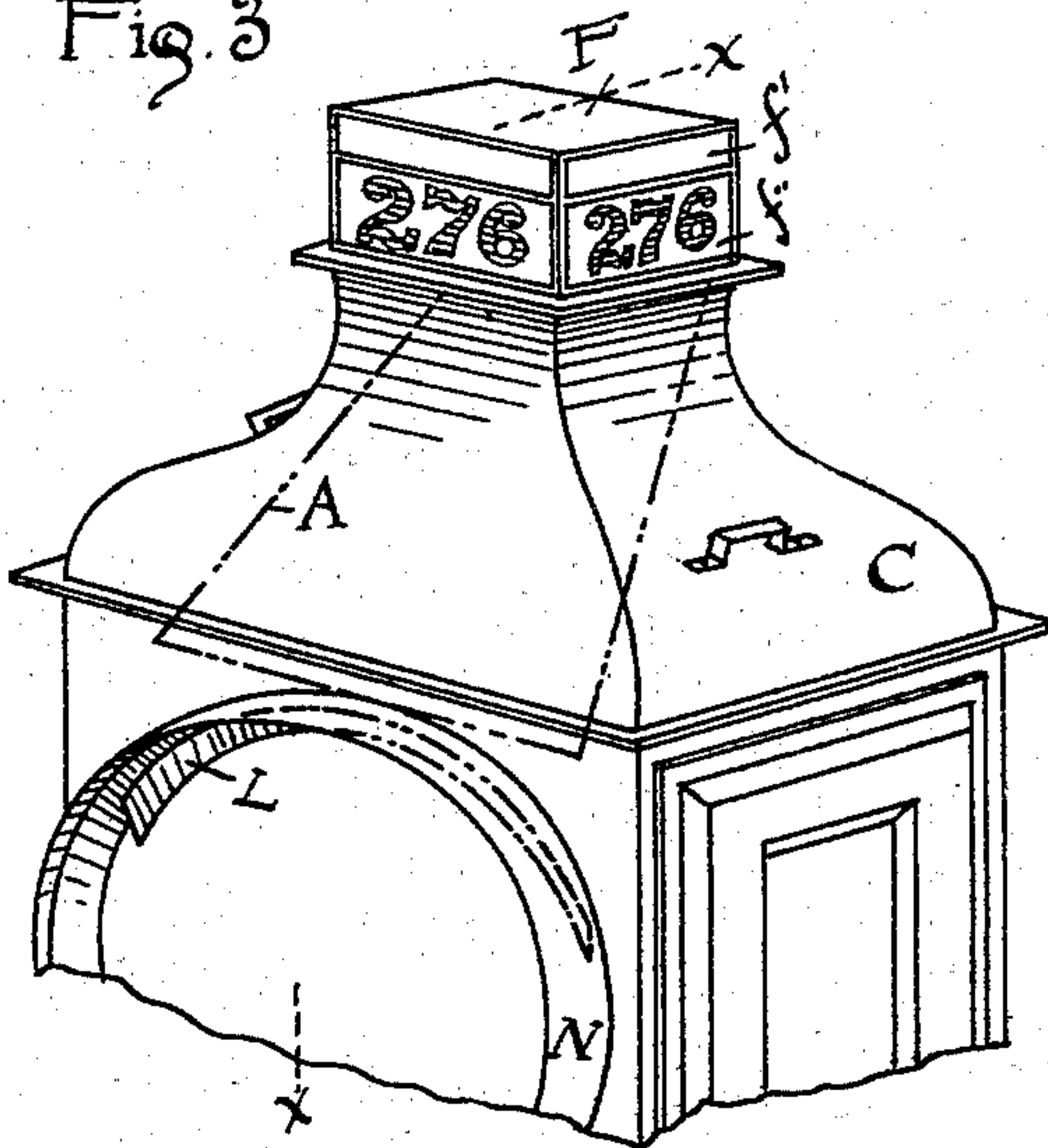


Fig. 2

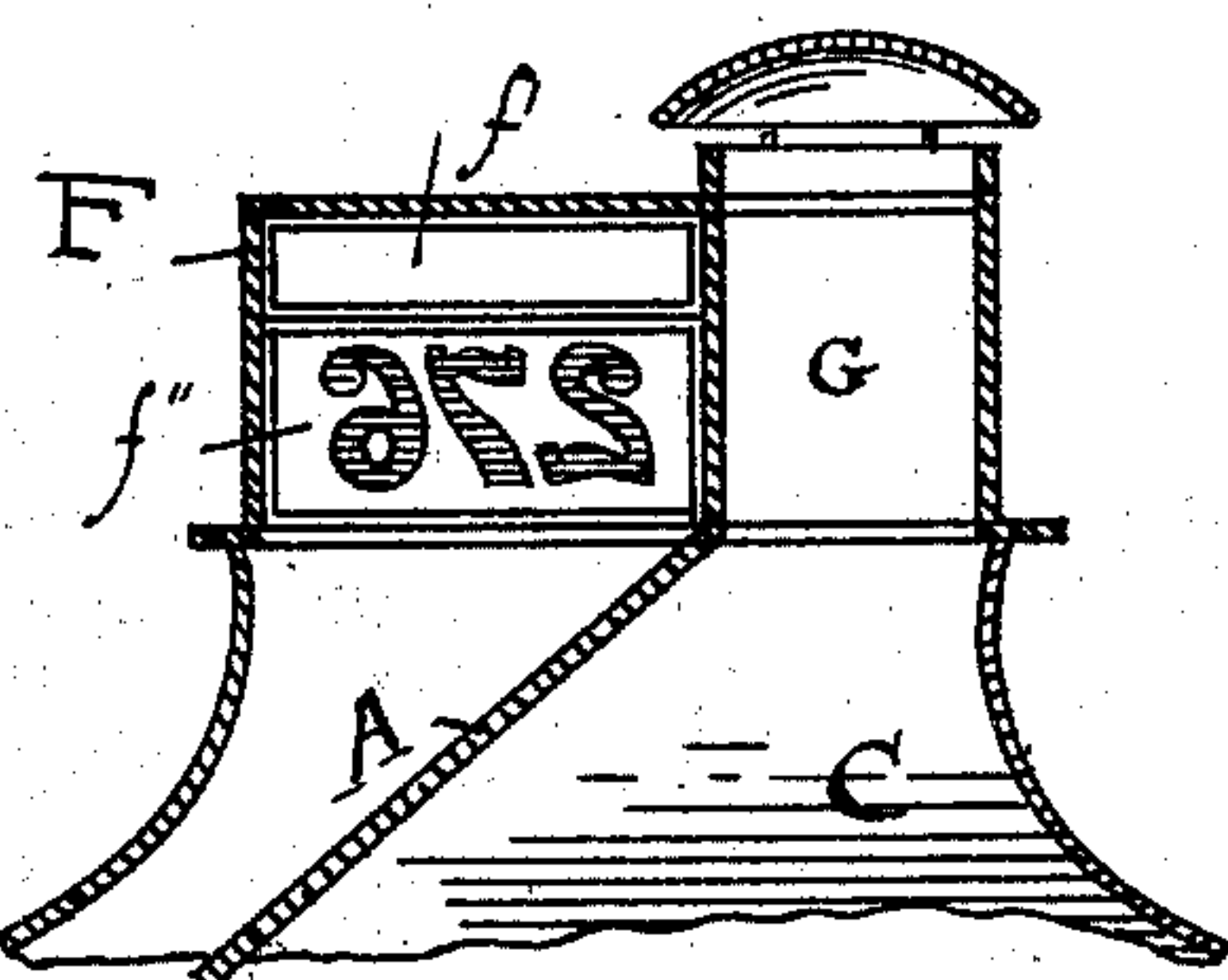
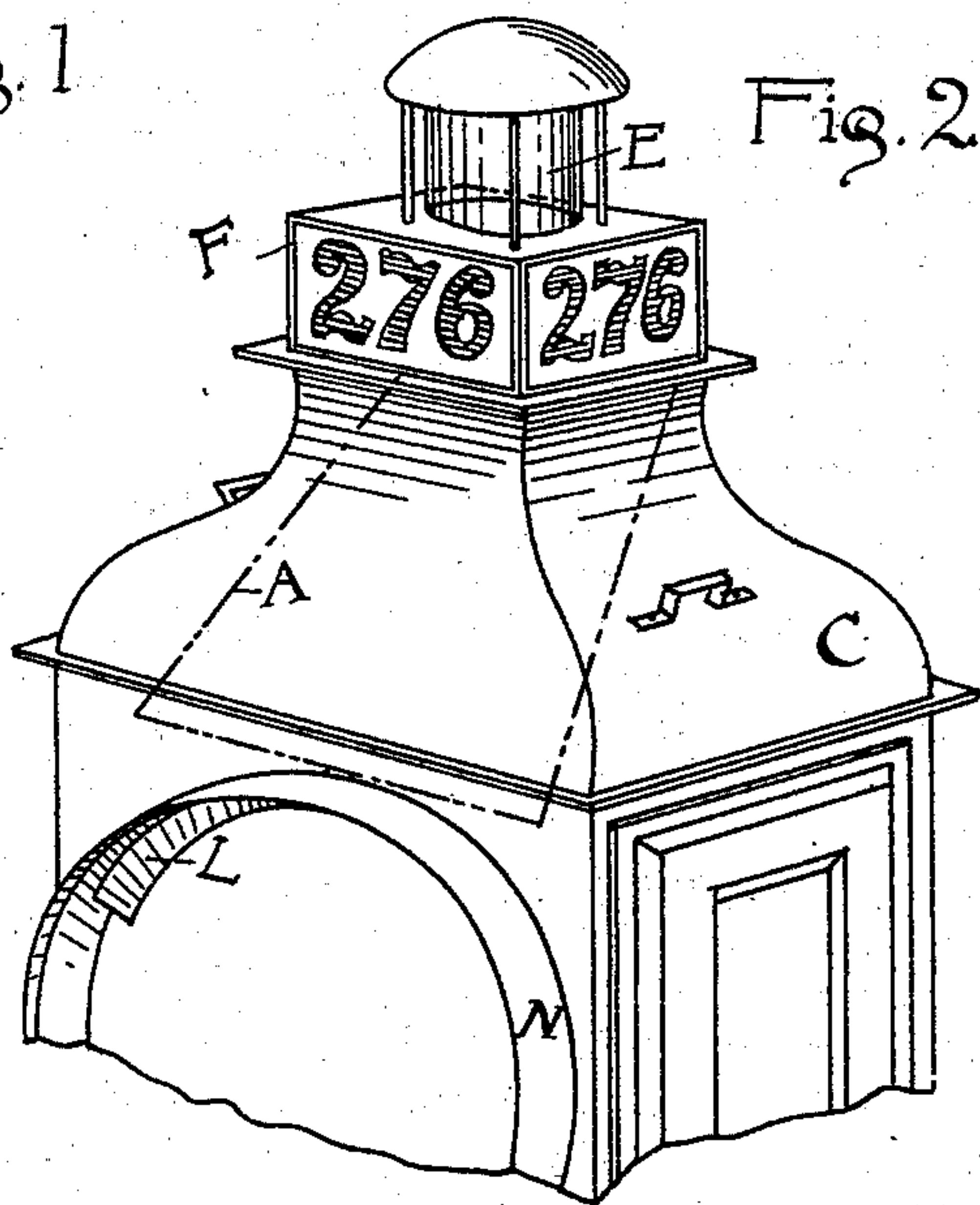


Fig. 4

Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN KIRBY, JR., OF LUDLOW, KENTUCKY, ASSIGNOR TO POST & CO., OF CINCINNATI, OHIO.

HEAD-LIGHT FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 268,027, dated November 28, 1882.

Application filed October 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN KIRBY, Jr., of Ludlow, Kenton county, State of Kentucky, have invented certain new and useful Improvements in Head-Lights for Locomotives, of which the following is a specification, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a section on line *xx* in Fig. 3. Fig. 2 is a view of head-light case, showing signal-box F and colored signal-globe E. Fig. 3 is a view of head-light case, showing signal-box F, with colored signal-plate *f'* and number-plate *f''*. Fig. 4 is a section showing vertical smoke-flue G.

Similar letters of reference in the several drawings indicate the same parts.

The object of my invention is to display signals or signal-numbers in the case of a head-light for locomotives in such a manner that they may be seen from two or more sides. I accomplish this by constructing a case with a roof, C, whose top or cap is a box, F, and placing thereon transparencies, which may be numbered or colored, or both. A colored hollow glass cylinder, E, Fig. 2, may be displayed above said box F, illuminated by the same light that illuminates the transparencies. I prefer, however, to display number-signals and colored signals in the box by placing the number-plates in the lower division, *f''*, of the box F and the colored plates in the upper division, *f'*; or the colored plates may be placed in the lower division and the number-plates in the upper division.

The light for illuminating the signals comes primarily from the lamp, the rays of which impinge on a reflector, L, Figs. 1 and 3, placed beyond the mouth of the reflector K in the rim N of the case. This reflector L is set so that the angle of incidence of the rays of light from the lamp to the reflector is such that the angle of reflection shall throw them directly into box F.

To assist in getting the full strength of the light, I place a plate, A, of any suitable material, of a width not less than the width of box F, above the reflector K, supporting it at one end near the front edge of reflector K, and at the other on the edge of box F farthest from the reflector L. The edges of this plate may be turned up. This plate, with the side B of roof C, constitutes what I call a "signal-light

chamber," and may be of any substance and color that tend to improve the light thrown into box F. Plate A is shown, in Fig. 1 and in dotted lines in Figs. 3 and 2. This signal-light chamber may be made in tubular form; but I prefer the form shown as more economical. The results of combustion in the lamp are carried off by a vertical flue, G, Fig. 4, provided it does not pass through the box F, or may be carried off by a horizontal flue, H, Fig. 1.

The box F may be closed at the bottom and illuminated by a lamp. In this event the reflector L and plate A need not be used.

It will be seen by reference to the drawings that the box F is protected from the heat and smoke of the lamp, and that the signals are not so liable to be smoked up as they are in head-lights in which they are placed on the sides of the open case and exposed to the smoke of a neglected burner. In this construction the smoke is practically shut out of the box F.

It is difficult to see signals as ordinarily placed on the side of the rim of the case, from in front, on account of the glare of light from the head-light reflector. This trouble is obviated by placing the signals in box F on top of the roof C.

I do not claim broadly the placing of signals in the top of the case of a locomotive head-light.

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

1. A head-light case having a roof, C, divided by a partition to form two chambers, one a signal-light chamber and the other a chamber through which the products of combustion can pass to a suitable exit, as set forth.

2. A head-light case formed with a roof, C, having a signal-box above the partition-plate A, which plate extends from the rear of the box toward the front of the reflector, and an opening in rear of the partition-plate for the passage of the products of combustion.

The foregoing specification of my invention signed by me this 11th day of October, A. D. 1882.

JOHN KIRBY, JR.

Witnesses:

JEPHTHA GAREARD,
RICHARD L. AYER.