

(No Model.)

W. J. H. RYDER.

SAFETY LAMP.

No. 312,584.

Patented Feb. 17, 1885.

Fig. 1.

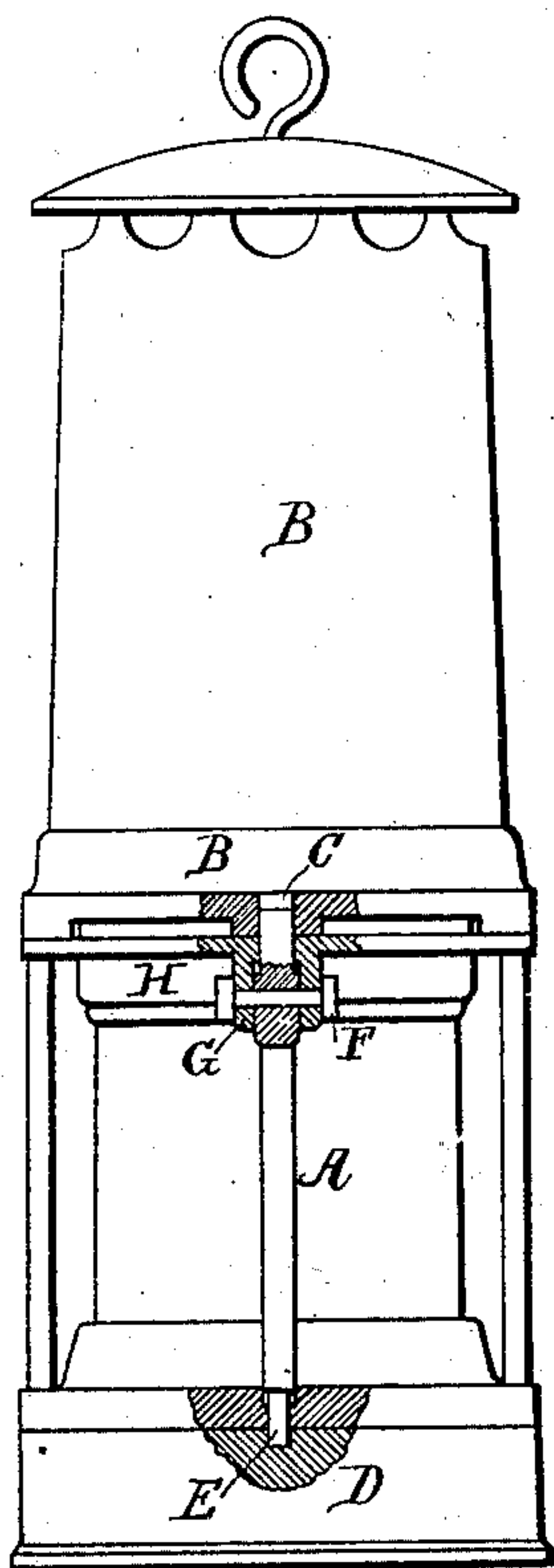
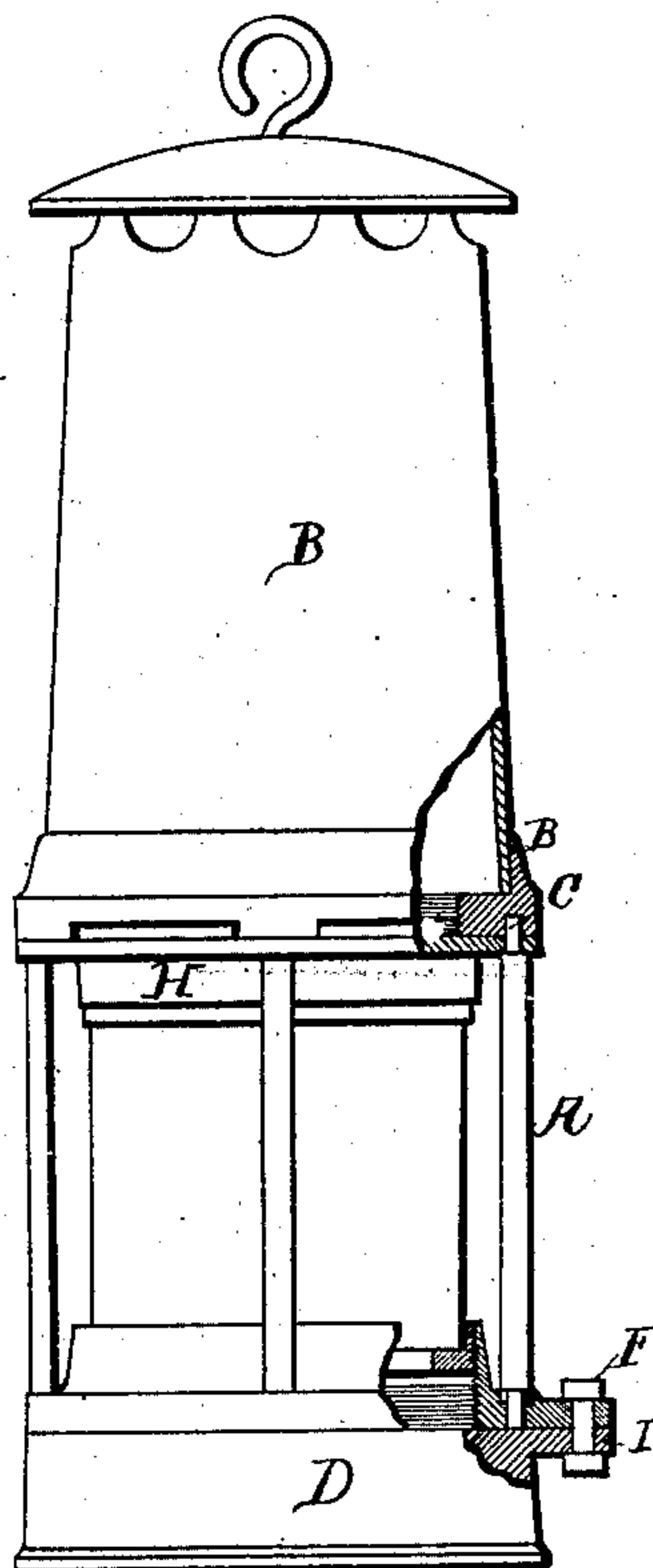


Fig. 2.



WITNESSES.

Albert Popkins.
Jas. L. Skidmore.

INVENTOR.

William J. H. Ryder
by his Attorneys,
Howson and Sons

UNITED STATES PATENT OFFICE.

WILLIAM J. H. RYDER, OF NEWCASTLE-UPON-TYNE, COUNTY OF NORTH-
UMBERLAND, ENGLAND.

SAFETY-LAMP.

SPECIFICATION forming part of Letters Patent No. 312,584, dated February 17, 1885.

Application filed June 21, 1884. (No model.) Patented in England February 9, 1884, No. 3,040.

To all whom it may concern:

Be it known that I, WILLIAM JOHN HARRISON RYDER, engineer, a subject of the Queen of Great Britain and Ireland, and residing at
5 Forth Street Brass Works, in the city of Newcastle-upon-Tyne, county of Northumberland, England, have invented certain Improvements in Safety-Lamps, (for which I have obtained a patent in Great Britain, No. 3,040, dated February 9, 1884,) of which the following is a specification.

My invention consists in providing safety-lamps with a lock, by means of which the different parts of the lamps may be securely
15 locked together.

When the lamp consists of two or more parts (such as in the "Marsaut lamp") which require to be locked together, I use, according to my invention, a movable pillar, as shown
20 at A, Fig. 1, arranged in such a manner that when the upper part, B, of the lamp is placed in position the movable pillar A is moved up into a recess, C, cut in the said upper part. The bottom D of the lamp is then screwed on
25 and the pillar A is brought partly back from the recess C, in the upper part, B, of the lamp into the recess E, cut in the bottom D. The pillar A is then locked in this final position, which may be effected by means of a plug or
30 rivet, F, made of lead or other suitable material, passing through a hole or holes in projecting pieces G of the middle part, H, of the lamp, also passing through a corresponding hole in the pillar, the said plug or rivet F being riveted over at the ends to prevent it being removed until required; but I do not limit myself to this particular mode of locking. The same arrangement of loose pillar A can be
35 used for locking the upper part, B, of the

lamps only, as shown in Fig. 2, by allowing the loose pillar A, when in the locked position, to rest on the bottom D of the lamp in such a manner that the pillar A cannot be withdrawn from the recess C in the upper part, B, of the lamp after the bottom D of the lamp has been screwed into position. The
45 bottom D of the lamp can then be locked by a plug or rivet, F, as shown, or by any of the usual methods.

It will be evident that although I have mentioned only one pillar and its connections, yet several such pillars and connections may be used in each lamp, if required.

Among the various devices for locking the parts of a safety-lamp together, I am aware
55 that a pin on one part adapted to a recess on the other part of the lamp has been employed; but the novelty in my invention consists in employing as the locking device one of the usual pillars, which are almost always used
60 around the glass of the lamp to connect the upper and lower parts of the structure together and to protect the lamp-glass.

I therefore claim as my invention—

The combination of the detachable parts of
65 a safety-lamp with the connecting-pillars, one of said pillars, A, being movable and adapted to recesses in the parts of the lamp to lock them together, substantially as described.

In testimony whereof I have signed my name
70 to this specification in the presence of two subscribing witnesses.

WILLIAM J. H. RYDER.

Witnesses:

JOHN S. HAYS,

Field House, North Shields,

A. B. GOLDSBROUGH,

43 Bell Terrace, Newcastle-upon-Tyne.