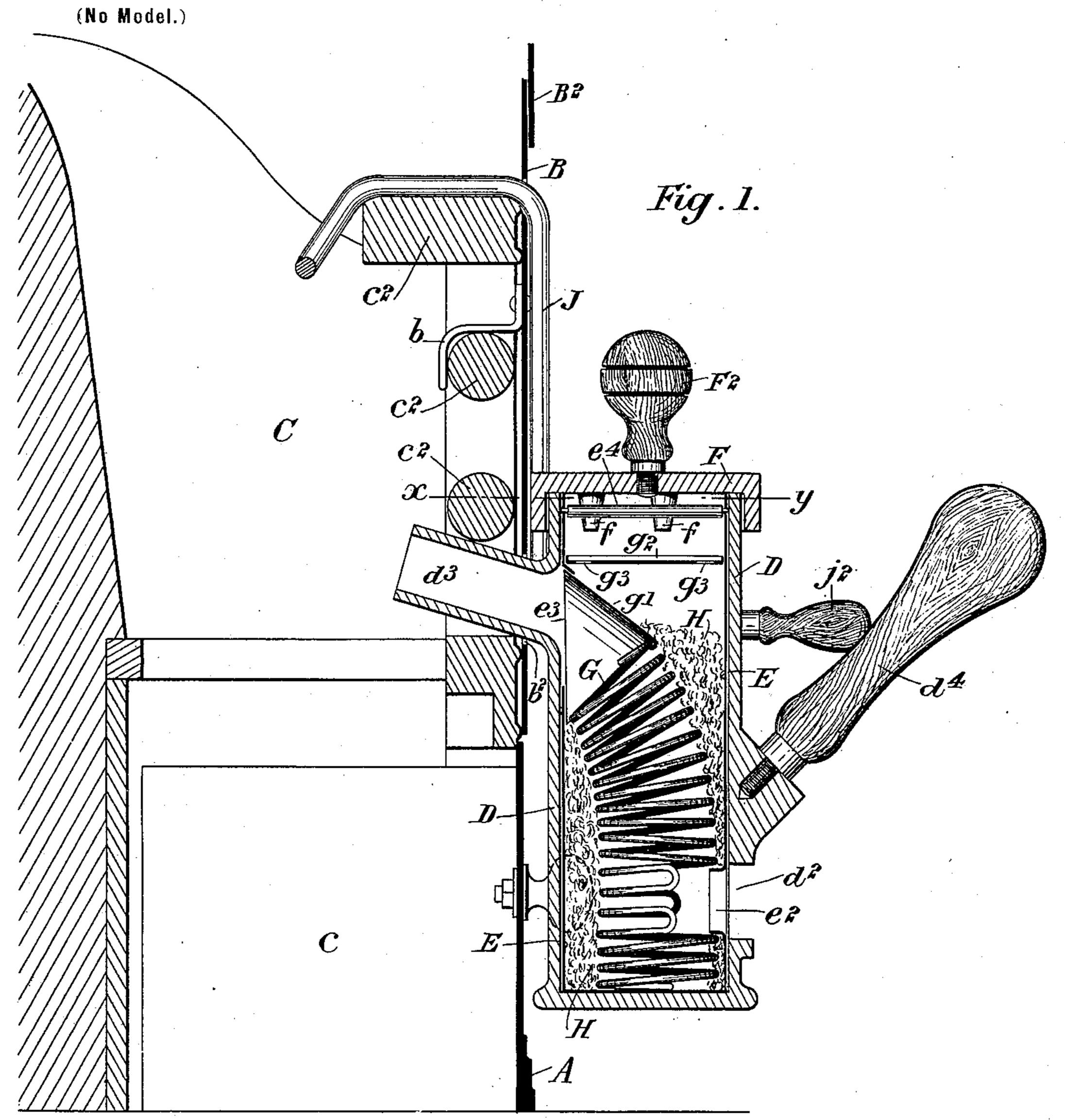
No. 611,964.

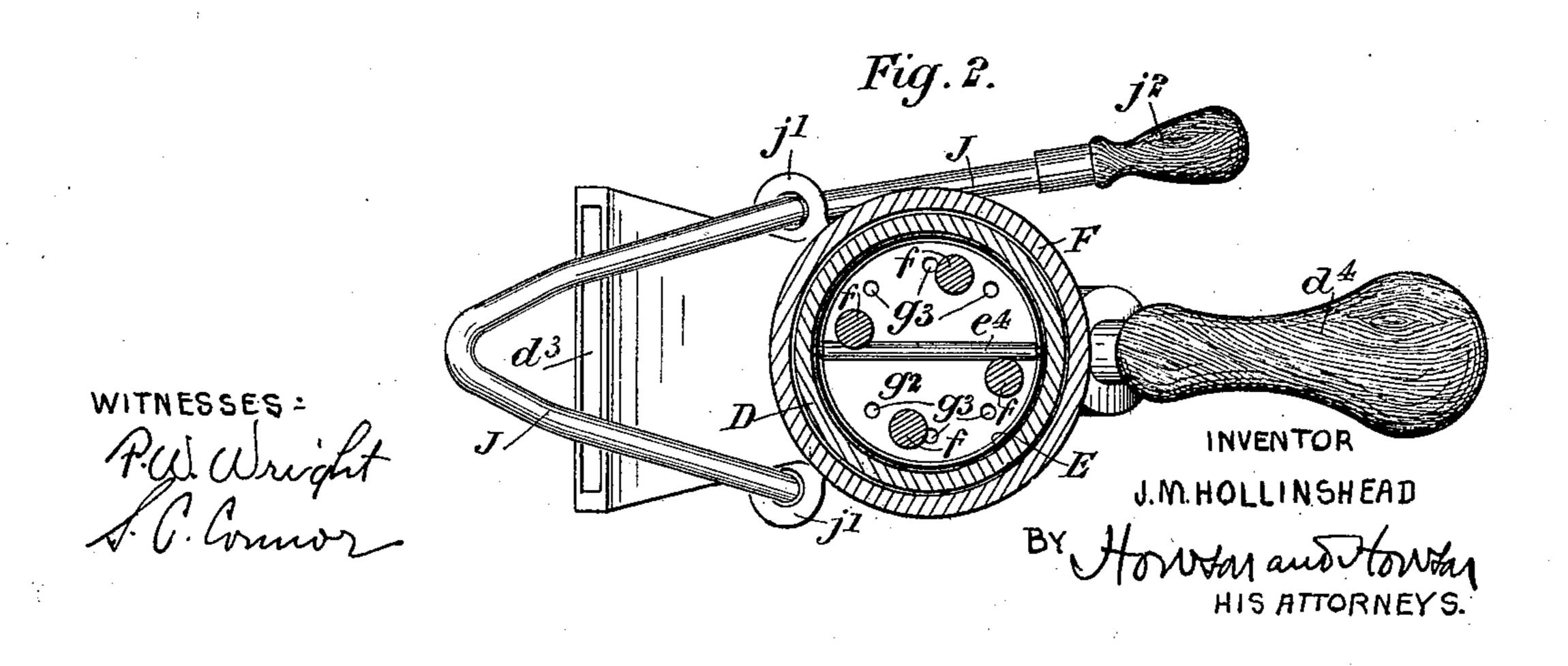
## J. M. HOLLINSHEAD.

Patented Oct. 4, 1898.

## APPLIANCE FOR KINDLING OR REVIVING FIRES IN DOMESTIC FIRE GRATES.

(Application filed Dec. 14, 1897.)





## United States Patent Office:

JAMES MASSEY HOLLINSHEAD, OF NEWCASTLE-UNDER-LYME, ENGLAND.

APPLIANCE FOR KINDLING OR REVIVING FIRES IN DOMESTIC FIRE-GRATES.

SPECIFICATION forming part of Letters Patent No. 611,964, dated October 4, 1898.

Application filed December 14, 1897. Serial No. 661, 792. (No model.)

To all whom it may concern:

Be it known that I, James Massey Hollinshead, coal merchant, a subject of the Queen of Great Britain and Ireland, residing at 78 Liverpool road, Newcastle-under-Lyme, in the county of Stafford, England, have invented a certain new or Improved Appliance for Use in Kindling or Reviving Fires in Domestic Fire-Grates, of which the following is a specification.

This invention relates to a new or improved appliance for attaching to or placing in front of the grate of a domestic fireplace or the like for kindling or reviving fires in such grates, the object of the said invention being to enable the fuel in such grates to be readily ignited or revived by the aid of the natural

draft of the chimney.

Referring to the drawi

Referring to the drawings, Figure 1 shows an appliance constructed according to my invention in vertical section; and Fig. 2 is a cross-section of the same on the line xy, Fig. 1.

A denotes the ash-hole plate, and B B² are the draft-plates, and C is the grate. The plate A may be first placed in front of the ash-hole c of the grate C at such a height in front that its upper edge is on a level with the fire-grate. The draft-plates B B² are situated above the plate A and provided with clips or ears b for attaching the same to a bar c² of the grate. The upper draft-plate B² may be formed in one with the draft-plate B. In the draft-plate B is an aperture b², through which the flaring mouth of the appliance is introduced, as hereinafter described.

The appliance itself consists of an inner igniting box or tube E, contained in an outer casing D, into which it fits, the said outer casing having toward its lower end, on one side, an aperture  $d^2$  and toward its upper end, on the opposite side, a flaring opening  $d^3$  for guiding the flame from the tube onto the fuel in the grate. On the top end of the casing is a removable cap F, with handle  $F^2$ . The tube E is open at its upper end and provided with lower and upper side apertures  $e^2 e^3$ , respectively, which can coincide with those  $d^2 d^3$  in the casing. A coil or its equivalent G is fitted within the said tube E, and between the

coil and the inner surface of the tube asbestos H or the like is packed. The coil G terminates at its upper end in a shield g', which guides the inflammable liquid onto the asbestos, to which it is fed through a plate  $g^2$ , with 55 perforations  $g^3$ , secured in the tube above the shield. A bar or rod  $e^4$  is fixed across the upper end of the tube E, with which pins f, depending from the under side of the cap F, can engage, so that by turning the said cap F by 60 the handle  $F^2$  the tube E is revolved in the casing D, and the apertures in each may be caused to coincide with each other or become closed for either lighting or extinguishing the flame in the appliance, as may be required. 65

J shows a hook sliding in side lugs j' and provided with a handle  $j^2$  for attaching the

appliance to a bar  $c^2$  of a grate.

 $d^4$  is a handle for raising the appliance to

its position against the grate.

When so placed against a grate, the appliance is ignited by applying a lighted taper through the lower apertures  $d^2 e^2$ , which have then been made to coincide. The heat within the coil quickly converts the inflammable 75 liquid into gas, which ignites, the flame being drawn by the natural draft from the grate-chimney through the flaring opening  $d^3$  and thence to the fuel contained in the grate, which is then quickly ignited.

I claim as my invention—

The appliance for use in kindling or reviving fires in grates or the like consisting of the combination with a draft-plate or draft-plates of an outer casing with apertures and an inser tube with corresponding apertures capable of being opened or closed to each other by a movable cap, the said inner tube containing a coil packed with asbestos or the like saturated with inflammable liquid and a persor forated plate and shield for distributing and guiding the liquid to the asbestos, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 95

two subscribing witnesses.

JAMES MASSEY HOLLINSHEAD.

Witnesses:

WM. HARRISON BRADLEY, JOHN H. COPESTAKE.