

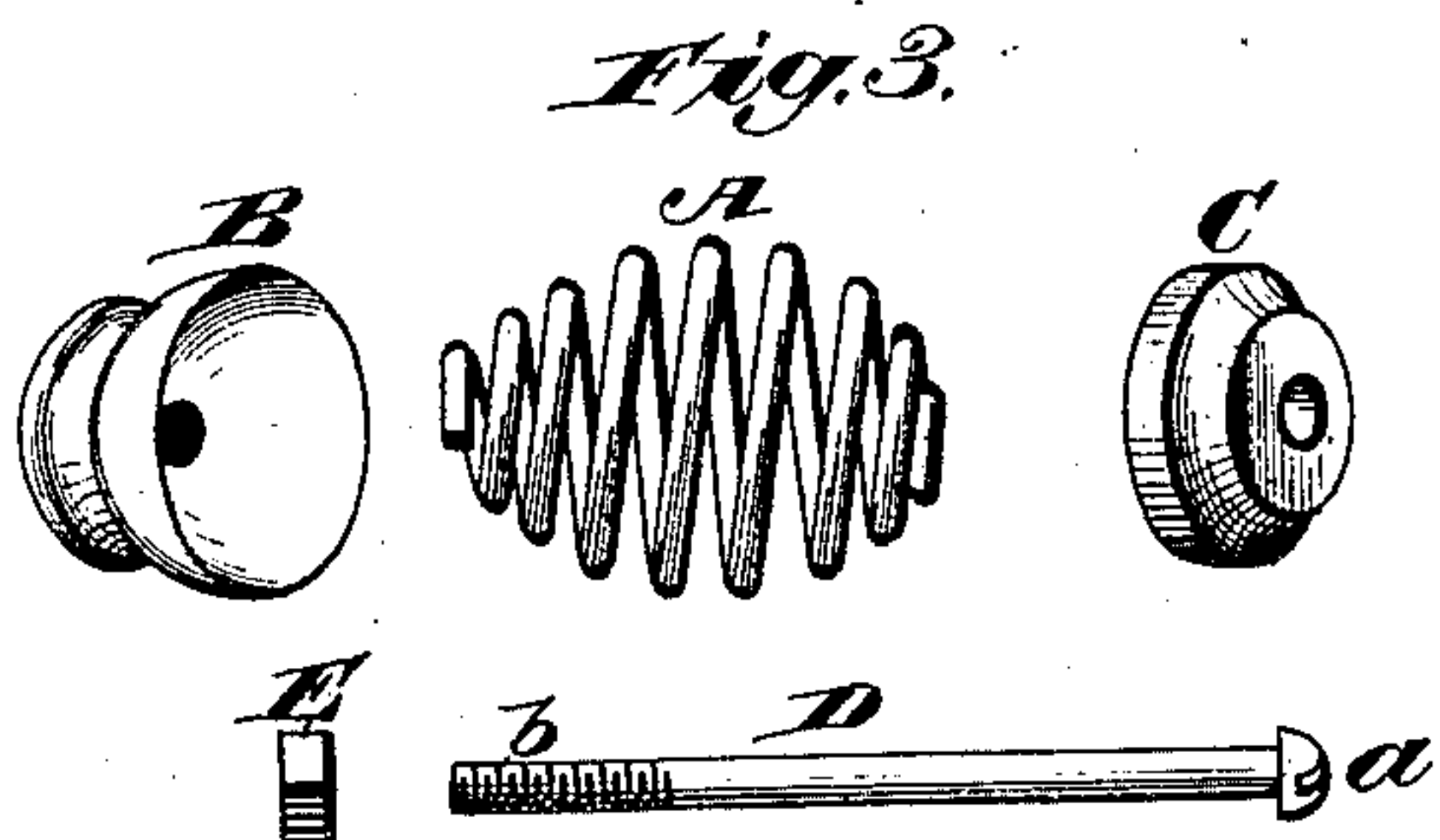
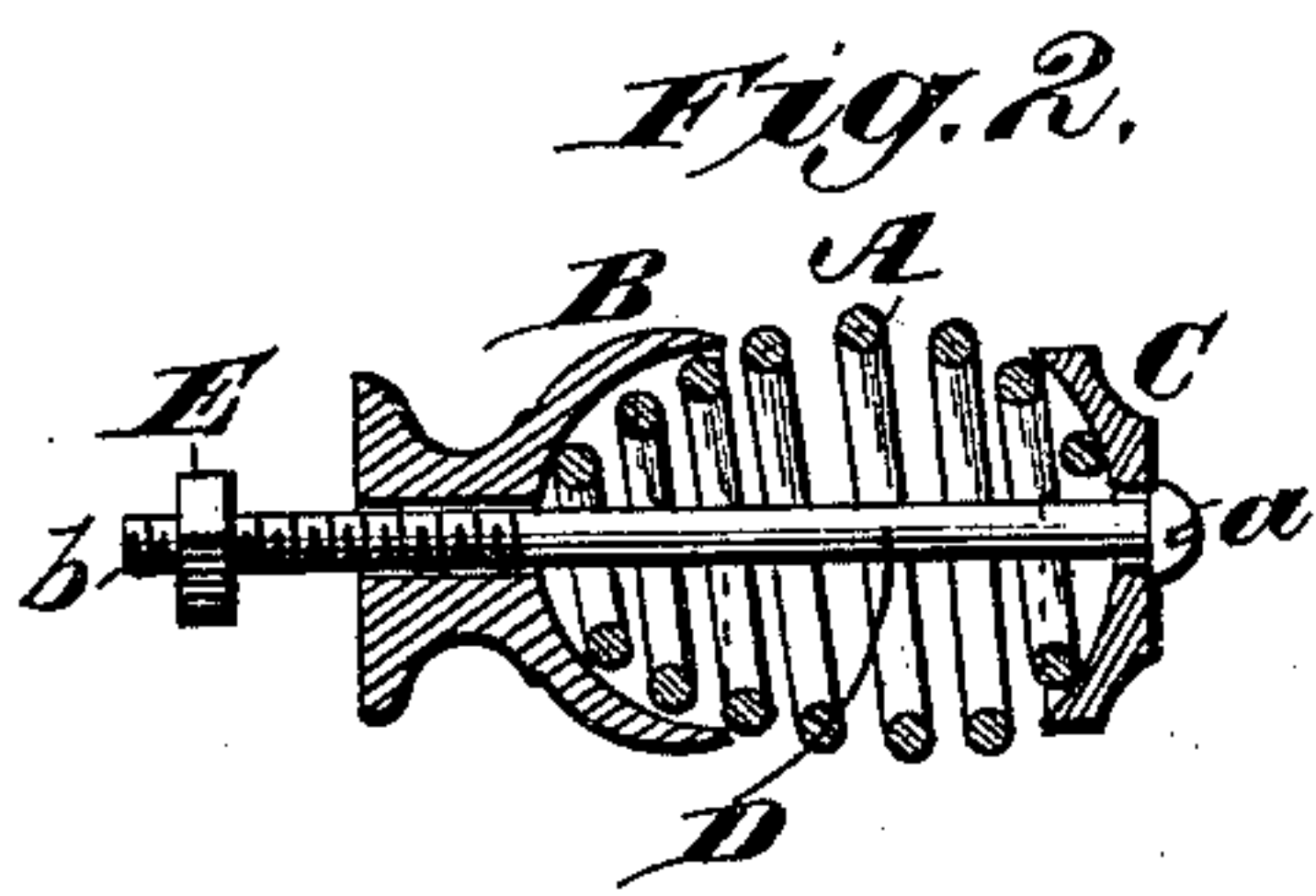
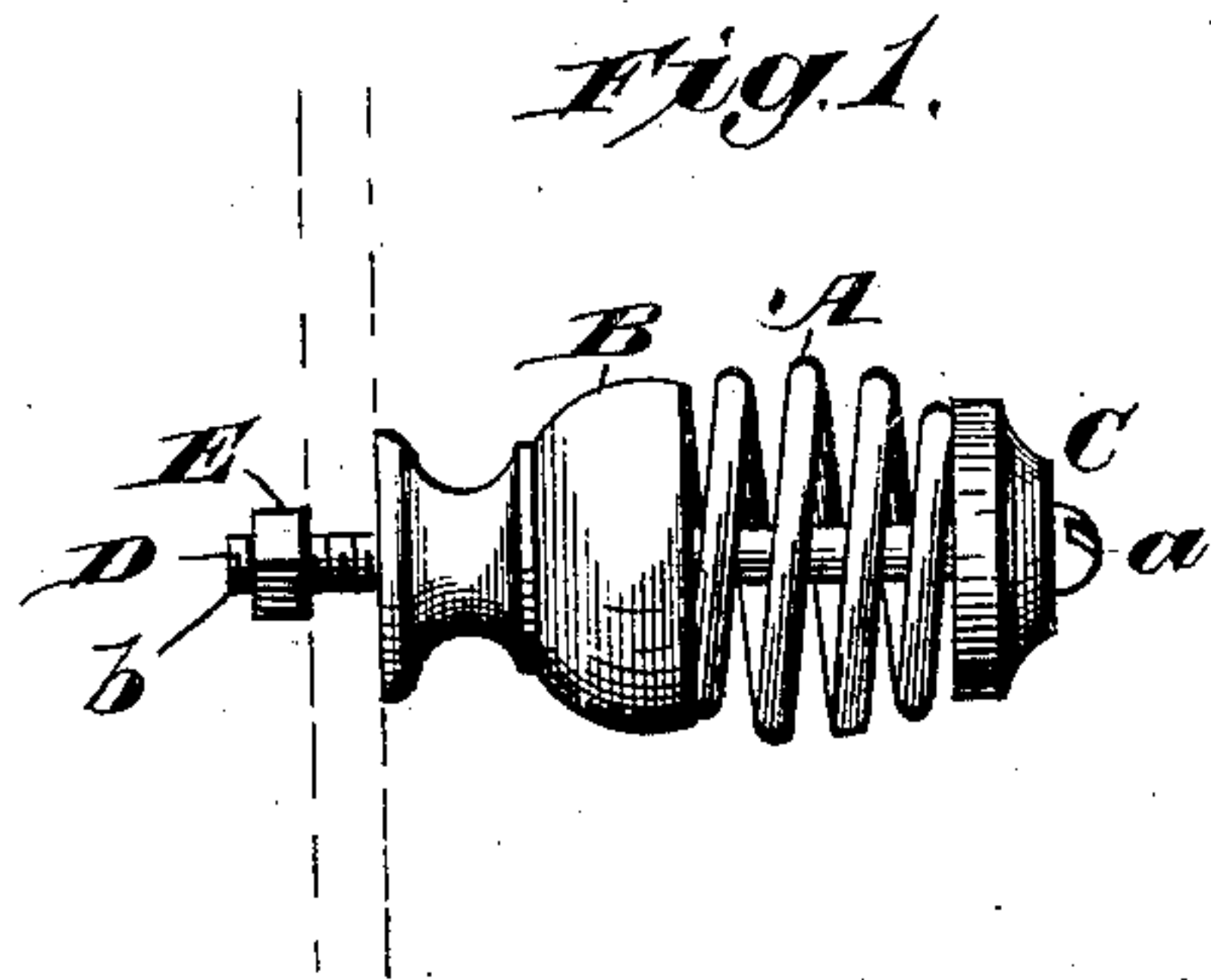
(No Model.)

J. E. GAITLEY.

KNOB FOR STOVES.

No. 304,925.

Patented Sept. 9, 1884.



Witnesses,

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UNITED STATES PATENT OFFICE.

JOHN E. GAITLEY, OF TROY, NEW YORK.

KNOB FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 304,925, dated September 9, 1884.

Application filed February 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. GAITLEY, a citizen of the United States, residing at Troy, in the county of Rensselaer and State of New York, have invented new and useful Improvements in Knobs for Stove-Doors, of which the following is a specification.

My invention relates to knobs for stove-doors and other uses to which it may be applied, and has for its object to provide a knob which will be held firmly in place without danger of becoming loose and rattling, and which will, when attached to a stove-door, conduct the heat from the point of attachment to the end of the knob with difficulty, at the same time that it will readily part with its heat by a free circulation of air within and through the parts composing said knob, whereby it may be grasped by the naked hand without danger of burning the fingers. These results I accomplish in the manner hereinafter described and claimed, reference being had to the accompanying drawings, illustrating my invention, in which—

Figure 1 is a side elevation showing the knob attached, the door being indicated by dotted lines. Fig. 2 is a central longitudinal section. Fig. 3 is a view showing the several parts composing the knob in detail.

In the said drawings, the reference-letter A denotes a spiral spring, which is coiled in such a manner that its diameter increases from each end toward the center, giving to the spring a substantially elliptical form in side elevation or in section. Upon one end of said spring is fitted a base-shell, B, having a cupped end, which receives one, two, or more of the end coils, and fits closely thereon, the opposite end of the shell being flat, so that it may lie flush against the face of the door or other object to which the knob is attached. Upon the outer end of the spring A is fitted a cap, C, having that face which is adjacent to the spring concaved, so that the outer end coil or coils of the spring may lie therein and fit closely. Both the base-shell B and the cap C are provided with a central perforation, through which is passed a bolt, D, having a slotted head, *a*, which rests upon the cap C, and a threaded end, *b*, which is inserted through a suitable aperture in the door and receives a nut, E, which is screwed upon its threaded

end, and by which the several parts are held together, the knob attached, and the tension of the spring A adjusted.

By the peculiar form of the spring, as shown and described, its central portion, or those coils which lie between one, two, or more of its end coils, will form a central swelling portion of the knob, forming, in connection with the base-shell B and cap C, a symmetrical body for the knob, which affords a convenient hold for the hand, and is highly ornamental to the stove or other device to which it may be applied. When attached in the manner described, the nut E is turned up until sufficient tension is given to the spring to press the base-shell B closely against the outer face of the door, the bolt D being held by a screw-driver, which is inserted in the slotted head *a* to prevent its turning. The spring-pressure takes up all wear of the parts, which are consequently held tightly at all times, and the rattling and looseness of the knob, which are so annoying upon stoves of the ordinary pattern, are wholly avoided.

It is evident that as the end cap, C, is connected with the base-shell, B, only by the spiral spring, the latter is not likely to become heated by conduction. Moreover, the central portion of the knob being open, the air has free access to the interior, and passes through the coils and between the shell and cap, cooling the parts and preserving their temperature at a point where the knob may be handled without inconvenience.

It is evident that the tension of the spring A may be adjusted to any required degree by an adjustment of the nut E upon the threaded end of the bolt D.

I am aware that heretofore knobs have been constructed having an end block of wood, which receives the end of a straight spiral spring interposed between it and the door to which said spring is attached. I am also aware that a register-knob has been used, consisting of a perforate shell, a straight spiral spring wholly inclosed thereby, a flanged washer and a bolt and nut, by which the tension of the spring may be adjusted, and I make no claim to such constructions, the same being wholly foreign to the invention shown and described in this application.

The several parts of my knob may be made

of any suitable material, or metal, and nick-
eled, or otherwise plated, to give it a highly-
ornamental appearance.

The device is extremely simple in construc-
5 tion, inexpensive to manufacture, and easily
applied.

What I claim is—

1. In a knob for stove and other doors, the
combination, with the base-shell and an end
10 cap, each having their adjacent faces cupped,
of a central bolt passing through both, and a
spiral spring interposed between, having its
end coil or coils lying in the said concave
faces, the central portion of said spring form-
15 ing part of the body of the knob, substantially
as and for the purpose set forth.

2. In a knob for stove and other doors, the
combination, with a spiral spring having its
coils increasing in diameter from each end to-
20 ward the center, of a base-shell and an end
cap, each having a cupped face which receives
the end coil or coils of the spring, a bolt pass-
ing centrally through said cap and shell, and
through an aperture in the door, and a nut
25 turned upon the end of said bolt, substantially
as and for the purpose set forth.

3. As a new article of manufacture, the
knob for stove and other doors, herein shown
and described, consisting of the elliptical spi-
ral spring, the base-shell, and end cap, each 30
receiving and fitting over one or more of the
end coils of said spring, a central bolt passing
through both, and having a slotted head lying
upon the end cap, and a threaded end to re-
ceive a nut, substantially as and for the pur- 35
pose set forth.

4. In a knob for stove and other doors, the
combination, with the spiral spring A, of the
base-shell B and end cap, C, each having a
cupped face which fits over one or more of the 40
end coils of the spring, a central bolt, D, and
a nut, E, substantially as and for the purpose
set forth.

In testimony whereof I have hereunto set my
hand in the presence of two subscribing wit- 45
nesses.

JOHN E. GAITLEY.

Witnesses:

WM. MCKENNA,
JOHN S. MCQUEEN.