

P. B. HOVEY.
Pressure Gage.

No. 104,593.

Patented June 21, 1870.

FIG. 1

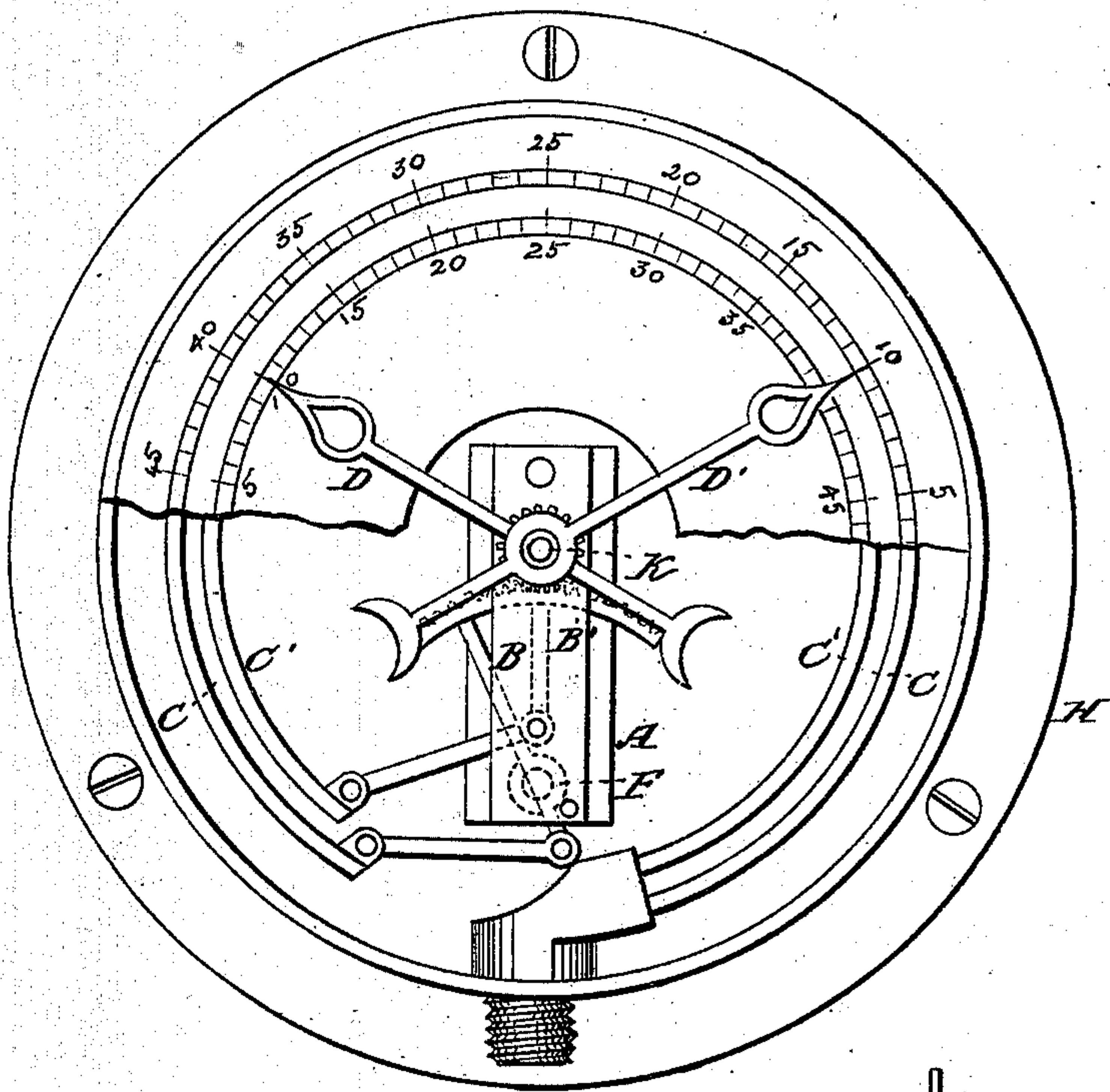
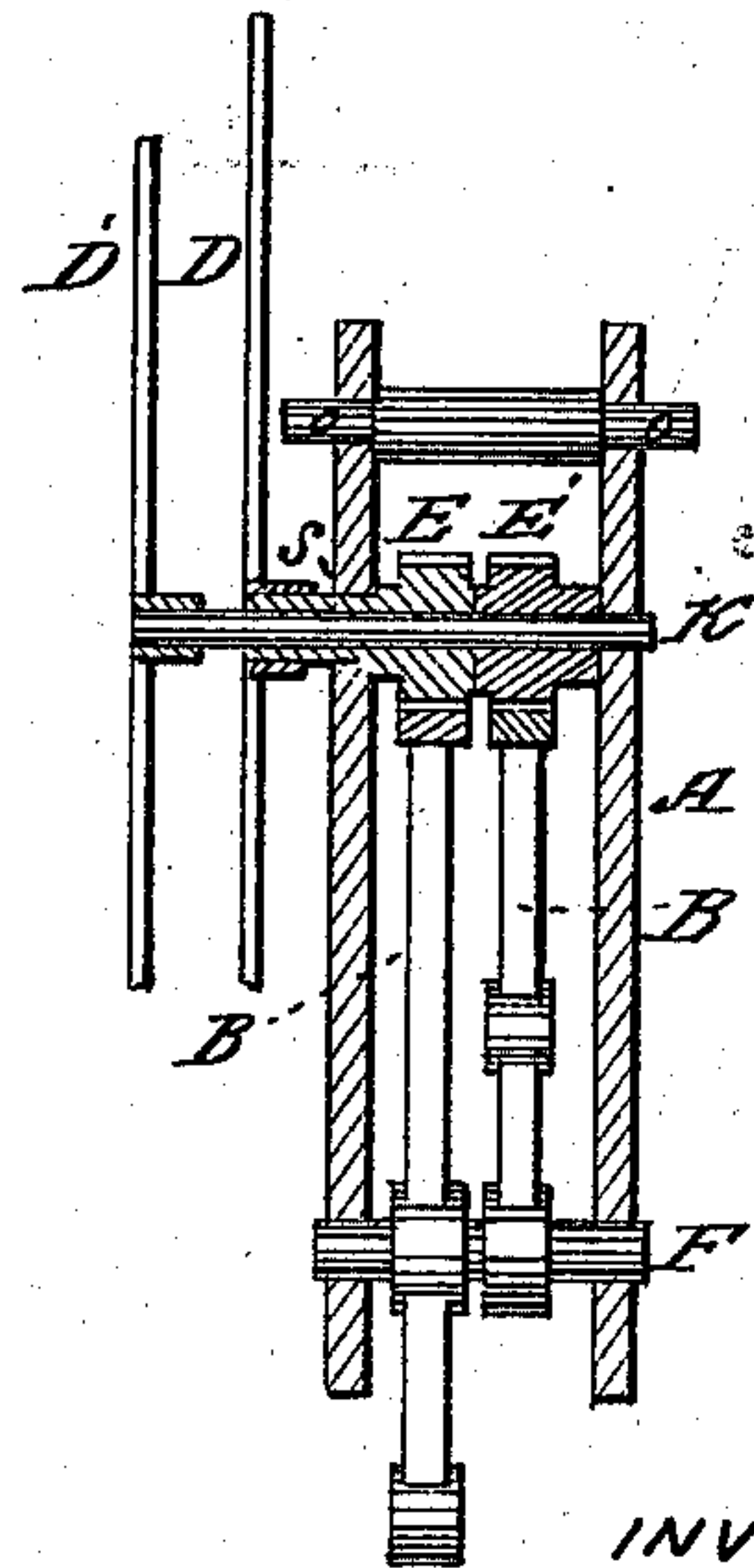


FIG. 2



WITNESSES:

Sam. Albertson

E. Ketterborn

INVENTOR:

Phil. B. Hovey

United States Patent Office.

PHILO B. HOVEY, OF NEW LONDON, CONNECTICUT.

Letters Patent No. 104,593, dated June 21, 1870.

IMPROVEMENT IN DUPLEX PRESSURE-GAUGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, PHILO B. HOVEY, of the town and county of New London, State of Connecticut, have invented a new and useful Improvement in Steam-Gauges; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing which forms a part of this specification, in which—

Figure 1 represents a front view of a gauge, with the arrangement of hands herein specified.

Figure 2 is a longitudinal section through the center of parts hereinafter claimed.

The nature of my invention consists in providing a steam-gauge with two distinct pressure springs, both placed within one case, which springs are connected by any of the ordinary methods, with two distinct hands, which, by my arrangement, are made to revolve about a common center, and each spring indicating its own pressure on a common dial, so that any accident to or loss of power in one spring is immediately made apparent by the other, the hands revolving either in the same or opposite directions, the whole forming, as it were, two gauges in one case, and having so many parts in common that it is simpler and cheaper than any form of gauge intended to accomplish the same object known to the inventor.

To enable those skilled in the art to make and use my invention, I give the following description of the construction and operation of my improvement:

A represents a frame, containing what are usually termed the "gauge movements" for operating the hands, in which frame are represented two sectors, B B', turning on a common shaft, F, which gear respectively into the pinions E E', one of these pinions being permanently attached to the revolving shaft K, and the other to a hollow tube or sleeve, which surrounds and revolves on this shaft K, both sleeve and shaft projecting out a sufficient distance to bring the hands, when attached in front of the dial, in the same manner as in the ordinary clock or watch.

The pressure spring shown is the old "Bourdon spring," and is only introduced as one of the many forms of springs for the purposes of illustration.

It will be seen from this description that the hands act entirely independent of each other and revolve about a common center, and that the outside case-frame A and the dial plate are common to both springs, and that the arrangement is a much simpler one than if both springs required every part to be in duplicate.

The advantages of the arrangement are that it provides for the use of two gauges, as it were, in one case, and thus provides an additional safeguard from explosions, which frequently occur from gauges being out of order.

I do not claim for this gauge any particular form of spring, as any of the ordinary springs may be used to advantage with this arrangement. Neither do I claim any particular way of making the connection between the springs and parts claimed, as almost any of the the ordinary forms can be adopted. Neither do I claim two gauge-springs in one outside case, when used apart from my claim, as I am aware that gauges have been made with two distinct springs in one case, but these gauges were entirely separate and had no parts in common, and did not register from a common center upon a common dial.

Having thus described my invention,

What I claim is—

Placing within one inclosing-case of a steam-gauge the mechanism of two steam-gauges, when the same are connected to one common supply-pipe and register from a common center upon the same dial, by means of a combination and arrangement substantially as herein described.

PHILO B. HOVEY.

Witnesses:

JAS. M. ALBERTSON,
C. KELTERBORN.