

(No Model.)

S. P. HASEY.
PNEUMATIC ALARM.

No. 493,712.

Patented Mar. 21, 1893.

FIG. 1.

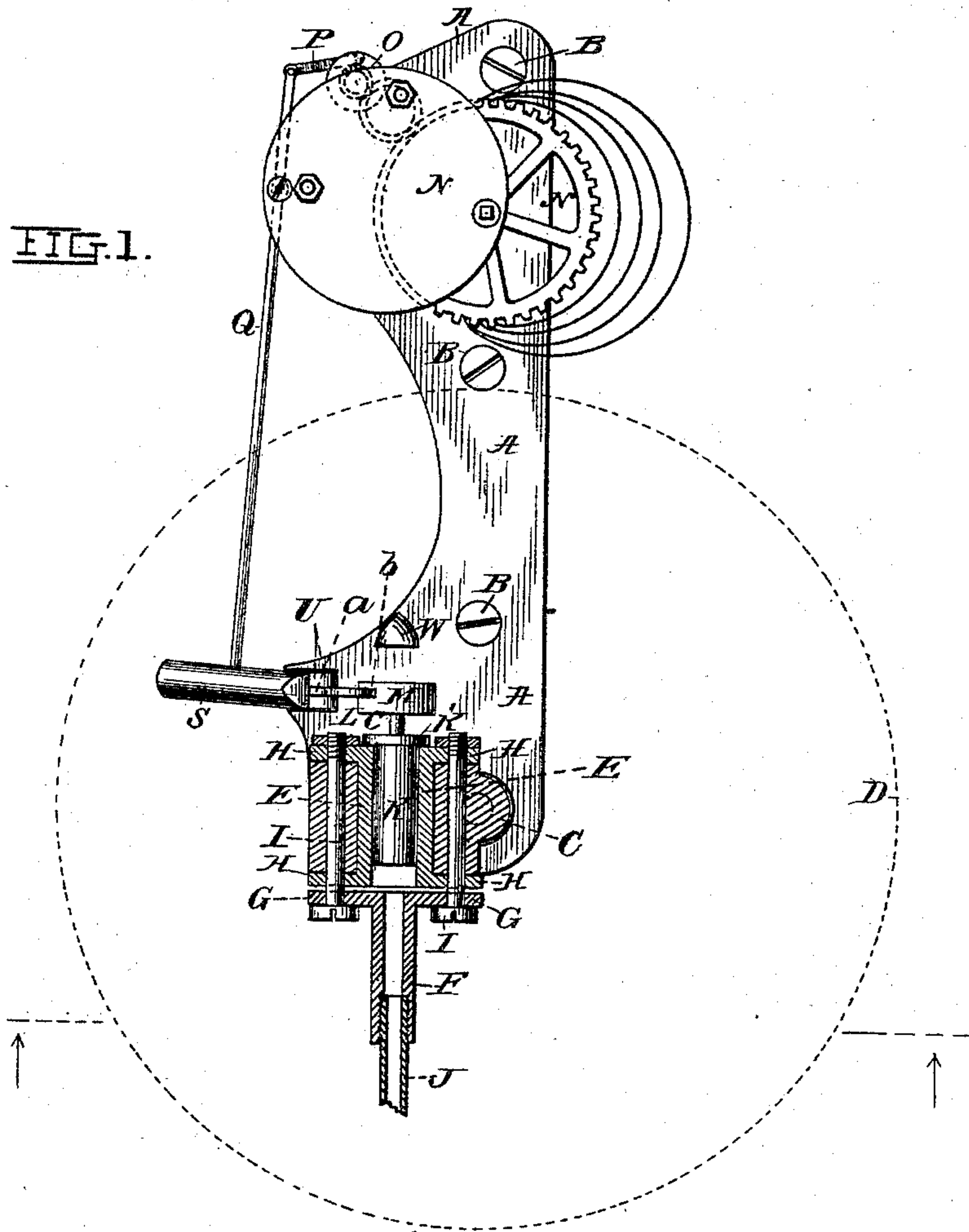
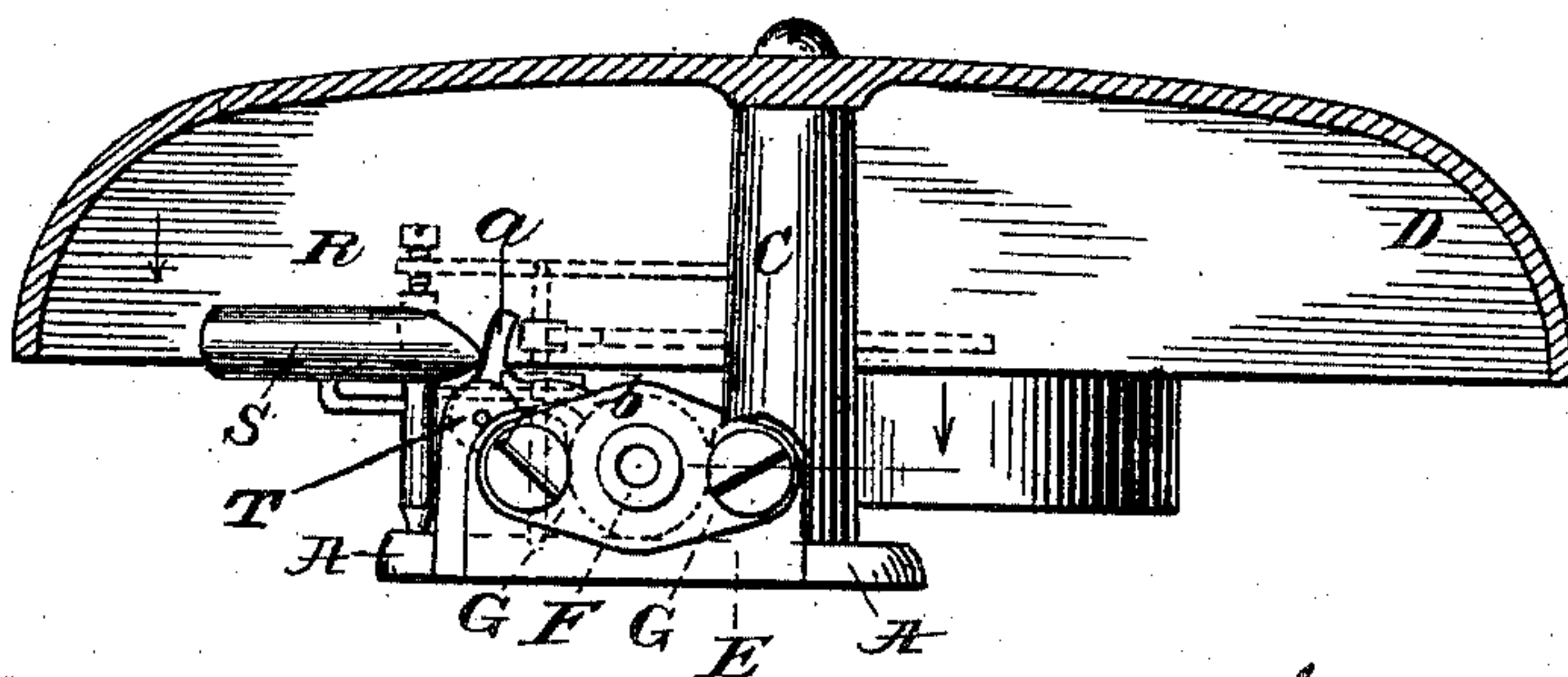


FIG. 2.



WITNESSES:

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PNEUMATIC ALARM.

SPECIFICATION forming part of Letters Patent No. 493,712, dated March 21, 1893.

Application filed October 7, 1892. Serial No. 448,099. (No model.)

To all whom it may concern:

Be it known that I, SYDNEY P. HASEY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Pneumatic Alarm Devices, of which the following is a specification.

My invention relates to an improved pneumatic alarm device which may be used in conjunction with a variety of apparatus, but is intended by me to be employed in conjunction with the fire alarm mechanism or apparatus for which I filed an application for Letters Patent of the United States on the 25th day of May, 1892, it being Serial No. 434,298. In that application I showed means for holding air under pressure connected with a system of pipes which extended through the building or premises which were to be protected and stop cocks set in the system of pipes at different places which being opened by the person discovering the fire would cause the alarms to be sounded throughout the entire property protected simultaneously thus giving a general alarm and I suggested that horns could be beneficially employed as the alarm producing device, although not limiting myself to horns. In certain cases horns are not very desirable for the purpose stated and where objections exist the novel alarm device which forms the subject matter of this application may be beneficially employed.

In the drawings,—Figure 1 illustrates an elevation of the invention. Fig. 2, illustrates a sectional view on the line X X of Fig. 1, looking in the direction of the arrows.

A is a base preferably of metal adapted to be fastened against the walls or wood work of the building as by screws B, B. The casting has a post C, cast integral with it which supports a gong D in the well known manner. E is a cylinder which may be cast on the base A and drilled out properly to act as an air cylinder as hereinafter explained.

F is a nipple or tube provided with a flange G whereby it may be clamped and firmly held to the flanges H H of the cylinder by screws or bolts I.

J is one of the air tubes which connect with the system of pipes described in said pending application.

K is the piston provided with a flange or stop K' on one end which prevents it from passing too far into the cylinder and it has an extension L therefrom which connects with an enlarged portion M.

N is a clock work mechanism which need not be fully described. It may be of any suitable construction.

O is a rotary crank wheel revolved by the clock work, and P is a link connecting the rotary crank with a rod Q which is pivoted at R to a stud on the base plate, and on the end of it is a hammer S which is located and arranged to strike the gong D when in operation.

T is a trigger as I call it. It is in the general form of a bell crank and is pivoted to a stud U on the base A. This trigger comprises two arms, one *a*, against which the hammer rests in the position in which the parts are when there is no fire, and the part *b* rests against the enlarged portion M of the piston and the part *b* is of such width as to be adapted to pass into the recess *c*, between the part M and the flange K' of the piston, when the piston is moved so that the arm *b* of the trigger coincides with the recess *c* of the piston.

W is a stop on the base plate which limits the outward movement of the piston.

The operation is as follows the hammer ordinarily rests on the arm *a* of the trigger, thus the clock mechanism is prevented from operating but when the air under pressure enters the cylinder the piston is driven outwardly and the enlarged portion M on the piston is carried away from the arm *b* of the trigger and the spring V of the clock work plus the weight of the hammer thereupon immediately rocks the trigger on its pivot, the arm *b* of the trigger entering the recess *c* between the part M and the flange K' the stop W serving to arrest the movement of the piston in proper position to allow this operation of the parts. As soon as the trigger releases the hammer the clock work at once commences to operate and the gong is sounded.

After the apparatus is operated as above set forth, in order to reset it for further use it will be necessary to go through the building or premises and readjust the parts to their normal positions as shown in the drawings hereof.

It will be understood that there are as many of the above described sounders scattered about the property as desired, each being in connection with the system of pipes for con-
5 ducting the compressed air to them so that when any one of the cocks are turned in any part of the pipe system all the sounders will simultaneously give the alarm as fully set forth in said pending application.

10 I do not limit myself to the details of construction of my apparatus, because they may be departed from and still the essentials of the invention be employed.

I claim—

15 The combination in a bell alarm device of a

pneumatic cylinder, a piston having an enlarged portion and a contracted or recessed portion outside of the cylinder, a clockwork, a gong, a hammer and a trigger, adapted to control the operation of the hammer by resting 20 against it and against the enlarged portion of the piston, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 23d day of September, A. D. 1892.

SYDNEY P. HASEY.

Witnesses:

PHILLIPS ABBOTT,
J. E. HOFFMAN.