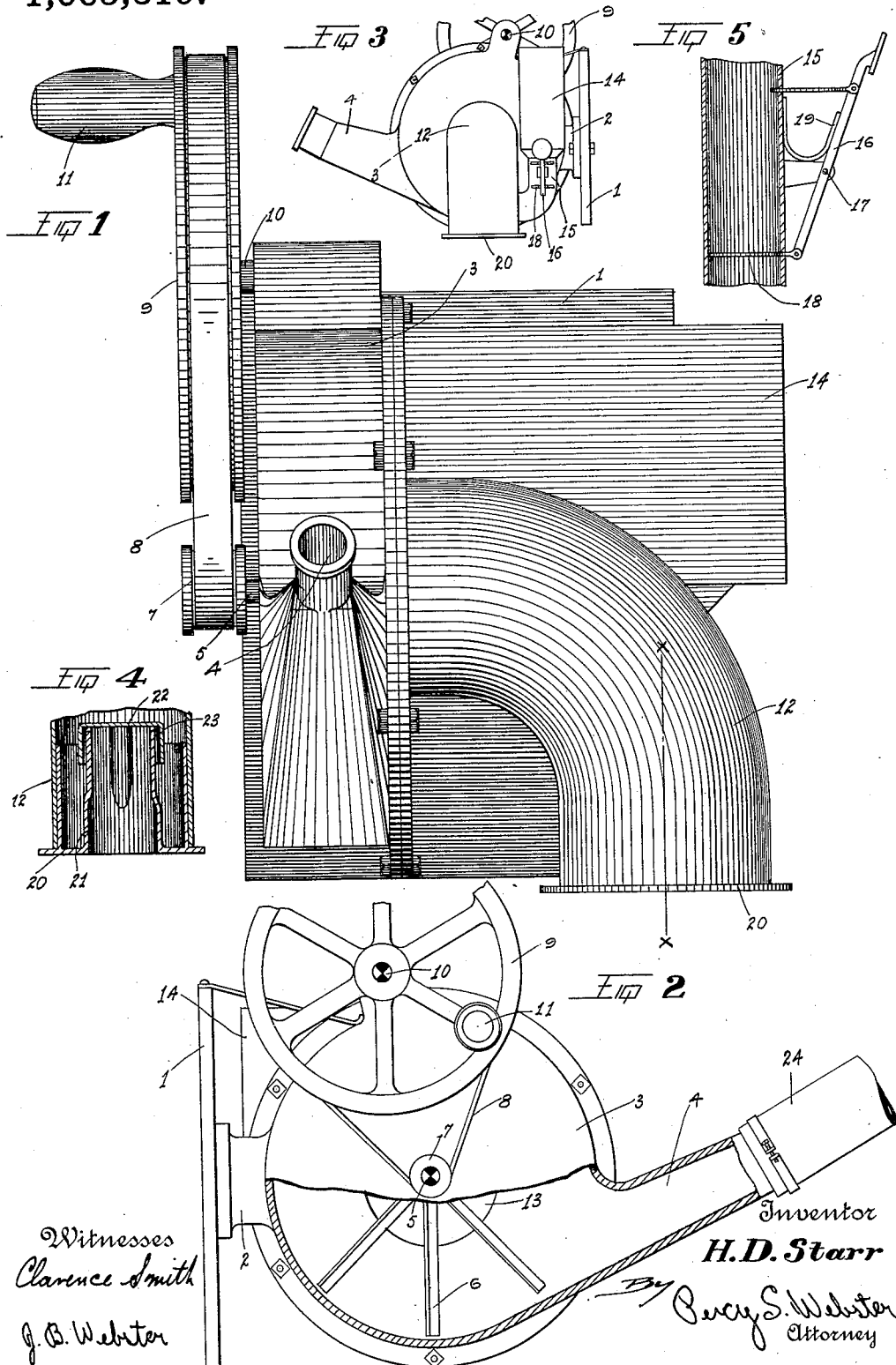


H. D. STARR.
SULFUR VAPORIZER.
APPLICATION FILED MAY 15, 1912.

1,065,319.

Patented June 17, 1913.



Witnesses
Clarence Smith
J. B. Webster

Inventor
H. D. Starr

By **Percy S. Webster**
Attorney

UNITED STATES PATENT OFFICE.

HARRY D. STARR, OF SANTA CRUZ, CALIFORNIA.

SULFUR-VAPORIZER.

1,065,319.

Specification of Letters Patent.

Patented June 17, 1913.

Application filed May 15, 1912. Serial No. 697,523.

To all whom it may concern:

Be it known that I, HARRY D. STARR, a citizen of the United States, residing at Santa Cruz, in the county of Santa Cruz, State of California, have invented certain new and useful Improvements in Sulfur-Vaporizers; and I do declare the following to be a clear, full, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in machines used for sulfuring plant and animal life of all kinds for the purpose of disinfecting insects and disease, the object of the invention being to produce a vaporizer for the sulfur combined with a blower for the purpose of thoroughly disseminating the fumes of the vaporized sulfur upon the objects to be sulfured.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects, I accomplish by means of such structure and relative arrangement of the parts as will fully appear by a perusal of the following specification and claim.

On the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a front elevation of the complete device. Fig. 2 is a side elevation partly broken out, of the same. Fig. 3 is a reduced view of the other side of the device from that shown in Fig. 2. Fig. 4 is a reduced view taken on a line X—X of Fig. 1. Fig. 5 is a sectional view of a valve mechanism.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 designates a supporting plate mounted on which by means of a frame 2 is a cylindrical casing 3 having a discharge outlet 4.

Turnably mounted within the casing 3 is a shaft 5 having impeller blades 6 secured thereon, such shaft 5 projecting outside of the casing 3 and being provided on its outer end with a pulley 7. A belt 8 connects said pulley 7 with a larger pulley 9 mounted on a shaft 10 secured to the casing 3 and pro-

vided with an operating handle 11. Bolted to the side of the casing 3 is an elbow shaped tubular member 12 opening into the casing 3 as at 13. Bolted to the casing 3 is a receptacle 14 provided with a pipe 15 connecting the same with the member 12. Disposed in said pipe 15 is a valve comprising a lever 16 fulcrumed on the outside of the pipe 15 as at 17 and having two slides 18 adapted to project into the pipe 15 accordingly as the lever 16 is moved in one direction or the other, there being a spring 19 to hold such lever 16 in such position as will hold the lower slide 18 across the pipe 15 as shown in Fig. 5, which will leave a quantity of the sulfur continuously against the lower slide 18. Now when it is desired to admit a quantity of the sulfur from the member 14 to the member 12, the lever 16 is operated to cause the upper slide 18 to move across the pipe 15 to close the same at that point. This operation will open the lower slide 18 and let the amount of sulfur between such upper and lower slides 18 pass into the the member 12 where it is vaporized in the following manner; to-wit: Projected into the bottom of the elbow 12 is a cup 20 having an upwardly projecting air inlet 21 over which is a cap 22 spaced a slight distance therefrom at the top and the sides leaving an intervening air passageway 23 from the atmosphere through the member 21 and such passageway 23 into the cup 20. The cup 20 is removable for the purpose of setting the sulfur therein on fire, and when once set on fire it may be kept continuously in operation by admitting sulfur from the receptacle 14 into such member 12, as described. As the sulfur burns, the handle member 12 is operated to drive the impeller 6 which causes a strong suction through the opening 13 from the member 12. This suction draws the sulfur fumes into the impeller casing 3 and discharges it out through the discharge outlet 4 upon the objects to be sulfured. A hose or other conveying means 24 will be connected with the discharge member 4 to lead to any point desired.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction

of the device, still in practice such deviations may be resorted to as do not form a departure from the spirit of the invention.

Having thus described my invention what
5 I claim as new and useful and desire to secure by Letters Patent is:—

A device of the character described comprising an impeller casing provided with a discharge outlet, an impeller mounted in
10 said casing and provided with a shaft, a pulley on said shaft, another shaft mounted independently of said first named shaft, a pulley on said second named shaft, a belt connecting said pulleys, a handle member
15 on one of said pulleys, a chambered member communicating with said impeller casing, a

receptacle communicating with said chambered member, a cup removably projected into the bottom of such chambered member, said cup being provided with an air inlet, 20 a cap mounted over the top of said air inlet and disposed a slight distance therefrom at the top and sides leaving a intervening air passageway, and a supporting plate secured to said members, as described. 25

In testimony whereof I affix my signature in presence of two witnesses.

HARRY D. STARR.

Witnesses:

JOSHUA B. WEBSTER,

PERCY S. WEBSTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."