

No. 788,512.

PATENTED MAY 2, 1905.

H. BLUMENBERG, JR.

SULFUR BURNER.

APPLICATION FILED JULY 8, 1904.

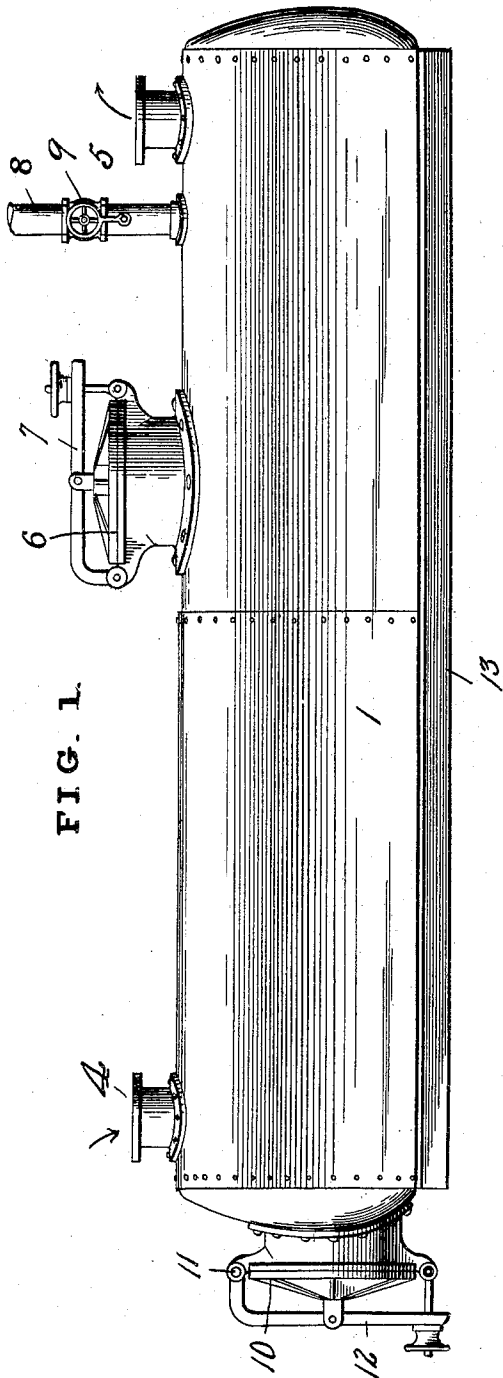


FIG. 1.

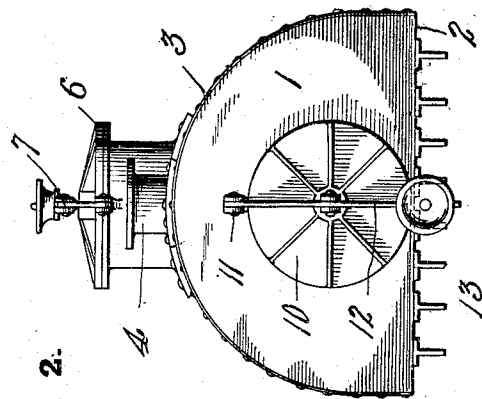


FIG. 2.

Witnesses
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HENRY BLUMENBERG, JR., OF DAGGETT, CALIFORNIA.

SULFUR-BURNER.

SPECIFICATION forming part of Letters Patent No. 788,512, dated May 2, 1905.

Application filed July 8, 1904. Serial No. 215,734.

To all whom it may concern:

Be it known that I, HENRY BLUMENBERG, Jr., of Daggett, in the county of San Bernardino and State of California, have invented certain new and useful Improvements in Sulfur-Burners; and I do hereby declare the following to be a full and clear description thereof.

My invention relates to the reduction of borosilicates of lime, borate of lime, or combinations having alkali-earth metals as a base on a commercial scale. In carrying out this reduction it is desirable to quickly and economically generate sulfur fumes or sulfur dioxide with proper safeguards against the escape of the gas during the process of generation.

In the drawings, Figure 1 represents a side elevation of an apparatus to which my invention has been applied. Fig. 2 is an end elevation of the same.

Referring to the drawings, the generating vessel 1 is provided with a flat floor 2 and preferably an arched roofing 3. At one end of the generator 1 is located a pipe 4 for the introduction of air under pressure and at the opposite end a pipe 5 for conveying away the sulfur dioxide to be utilized in the reduction of borosilicates of lime, borate of lime, or combinations having alkali-earth metals as a base. The top of the generator is provided with a quick-opening door 6, having mechanism 7. Connected with the generator 1 or with the pipe 5 is a pipe 8, leading to the outer air or without the compartment within which the generator is located. In this pipe is a valve 9 for controlling the passage of gas therethrough.

In supplying sulfur to the generator the quick-opening door 6 is provided; but notwithstanding this provision the fumes will escape to more or less degree during the charging of the generator while combustion is taking place. To prevent the deleterious effect of this escape of gas, the relief-valve 9 is opened in the escape-pipe 8 just prior to the introduction of the sulfur and thereafter quickly closed.

The flat floor of the generator 1 also permits the sulfur to spread out quickly upon the floor and burn much faster than where the generator is ordinarily constructed.

In the front of the generator is located a door 10, hinged at 11 to permit it to swing upwardly. This door is provided with opening mechanism 12 similar to that of door 6. Both these doors are adapted to be quickly operated by means of a cord or chain running over a sheave or pulley, as shown and described in my Patent No. 734,397, granted July 21, 1903.

The door 10 permits the generator to be cleaned.

I preferably support the flat floor of the generator by a series of angle-bars 13.

I may, if desired, provide the mechanism of the quick-opening door 6 with means connecting it to the valve 9 of the relief-pipe, whereby the latter will be automatically opened whenever the door 6 is opened and the valve closed when the door is closed.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a generator, the combination of a flat horizontal floor, an arched top, an air-supply pipe, a normal discharge-pipe, an auxiliary relief discharge-pipe provided with a valve and leading to the exterior atmosphere, a charging-aperture, a quick-opening door for the same, and a cleaning-aperture in one end of said generator, provided with a door.

2. In a generator, the combination of a flat horizontal floor, an arched top, angle-iron supports for said floor, an air-supply pipe, a gas-discharge pipe, an auxiliary gas-discharge pipe leading to the exterior air and provided with a valve, a charging-trap, a quick-opening door for said trap, and a cleaning-trap provided with a door.

In testimony whereof I have affixed my signature in the presence of two witnesses.

HENRY BLUMENBERG, JR.

Witnesses:

E. ALF,

GEO. W. LECOMPTON.