Cyrus M. Kelsey's

Imp: Method of Vulcanizing Rubber.

№ 93623

Fig: 1

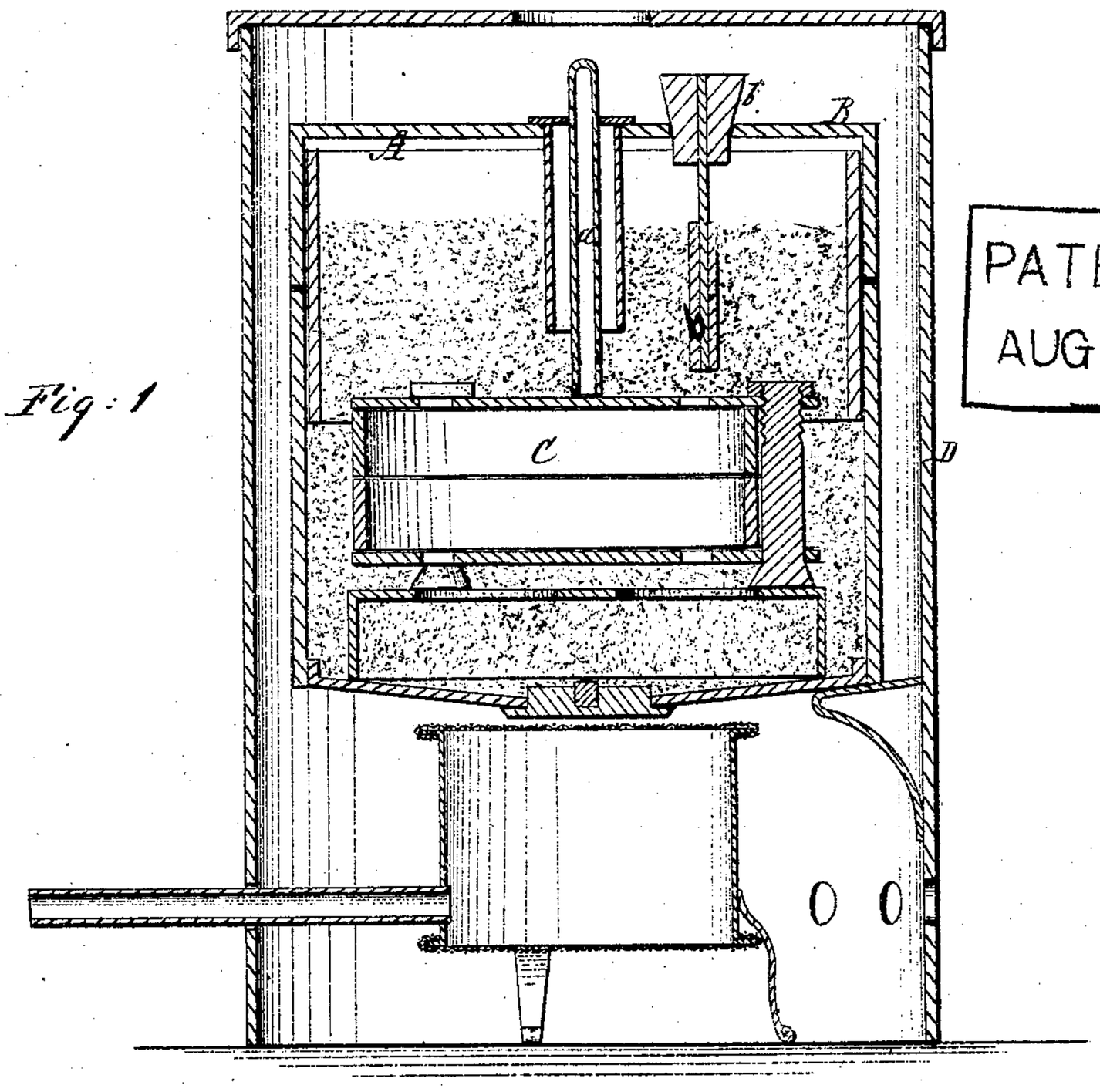


Fig: 2

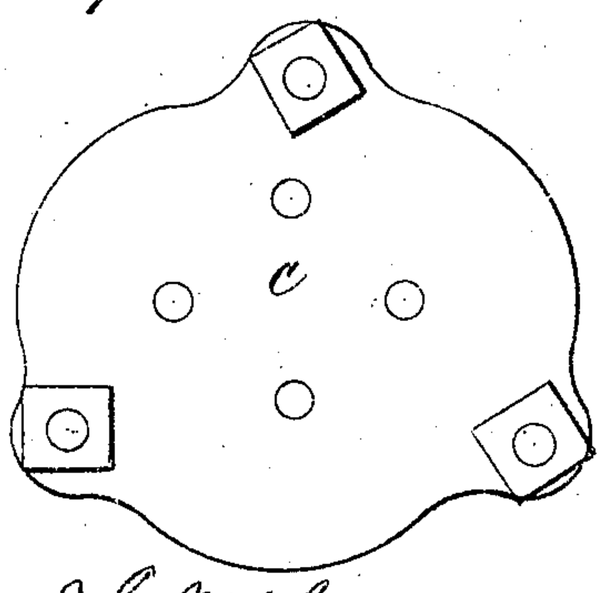
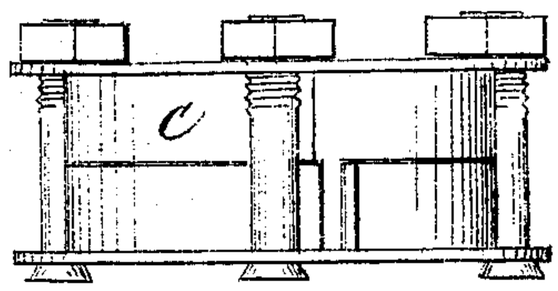


Fig: 3



Attest { S. W. Wayne
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Inventor Cyrus M. Kelsey

per D M Kelsey Atty

UNITED STATES PATENT OFFICE.

CYRUS M. KELSEY, OF MOUNT VERNON, OHIO.

IMPROVEMENT IN VULCANIZING RUBBER FOR DENTAL PLATES AND FOR OTHER PURPOSES.

Specification forming part of Letters Patent No. **93,623,** dated August 10, 1869.

To all whom it may concern:

Be it known that I, CYRUS M. KELSEY, of Mount Vernon, in the county of Knox, in the State of Ohio, have invented a new and Improved Method of Vulcanizing Rubber for Dental and other Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings of my improved apparatus, in which—

Figure 1 represents a vertical central section. Fig. 2 represents the top view or plan of flask, and Fig. 3 represents the side elevation of the same.

The nature of my invention consists in packing the flask (containing the rubber gum and teeth prepared as by the old method) in sand or such like material, the sand being placed around the flask inside the vulcanizer, the object of which is to prevent the rubber from burning, and to retain, modify, and equalize the heat. Second, it affords an opportunity to insert a try-piece, by which the exact state of the rubber in the flask can be easily ascertained without affecting the heat or condition of the rubber in the flask, thereby enabling the operator to know just when the material he wishes to vulcanize is sufficiently done.

To enable others skilled in the art to use my invention, I will proceed to describe the operation, &c.

The vulcanizer A consists of a cylinder of sheet-iron or other material, as in drawings, and a cap or cover, B, for the same.

In the cylinder A is poured sand to the depth of an inch, more or less. Then the flask C is put in, and the sand poured around and over to the depth of an inch. The cap B is then put on over the flask and contents.

In the top or cover are two apertures, one for the thermometer and one for the try-piece *b*. The tube *a* in the top, in which the thermometer is placed, runs down to the flask C, in which the rubber is put, and therefore denotes the exact heat.

The whole is then placed into a jacket, D, as by the old mode, and heat, either by gas or burning-fluid of some kind, is applied. The degrees of heat run from 320° to 380° Fahrenheit, varying according to the different kinds of rubber to be vulcanized.

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

The vulcanizing of rubber for dental and other purposes by means of a sand-bath and try-piece, &c., as above described.

But more specifically—

1. As an improvement in the method of vulcanizing india-rubber, the use of a sand-bath combined with a flask, in the manner above substantially set forth.

2. In combination with a sand-bath and flask for vulcanizing india-rubber, the employment of a thermometer, substantially in the manner described.

3. In combination with a sand-bath and flask for vulcanizing india-rubber, the employment of a try-piece, substantially as above set forth.

4. In combination with a sand-bath and flask for vulcanizing india-rubber, the employment of a try-piece and thermometer, substantially in the manner set forth.

CYRUS M. KELSEY.

Witnesses:

H. C. FOWLER,

ED. KELSEY.