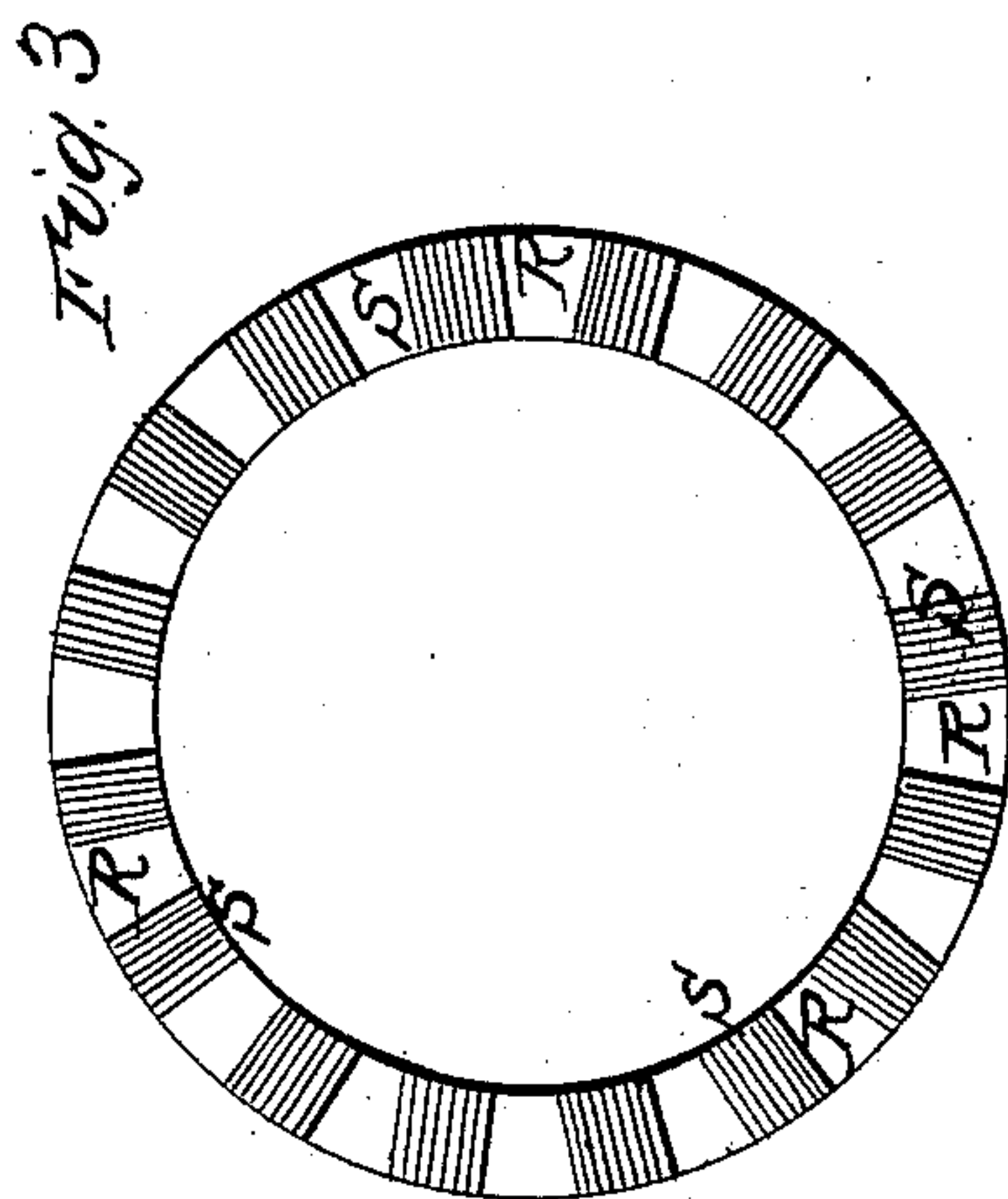
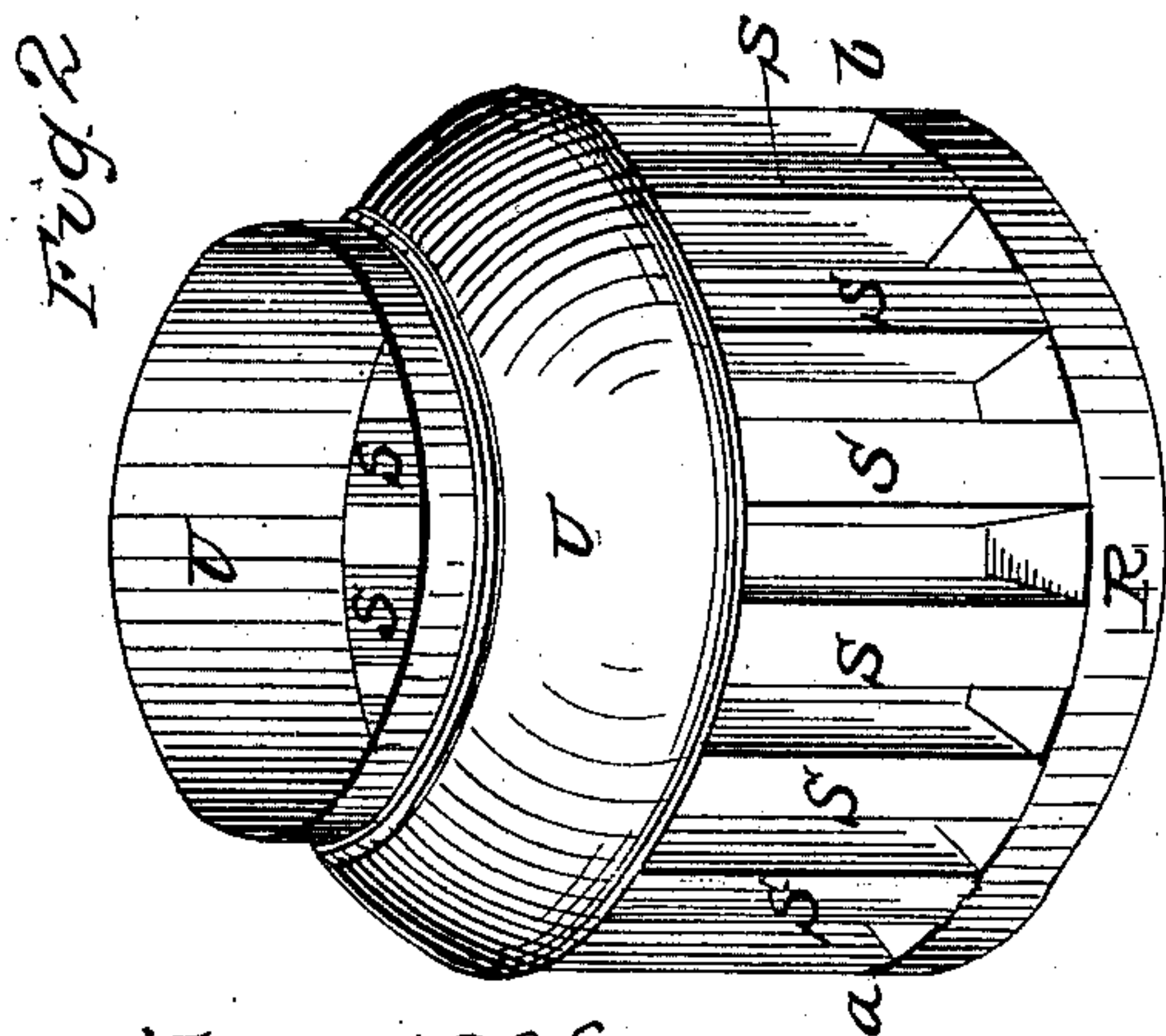
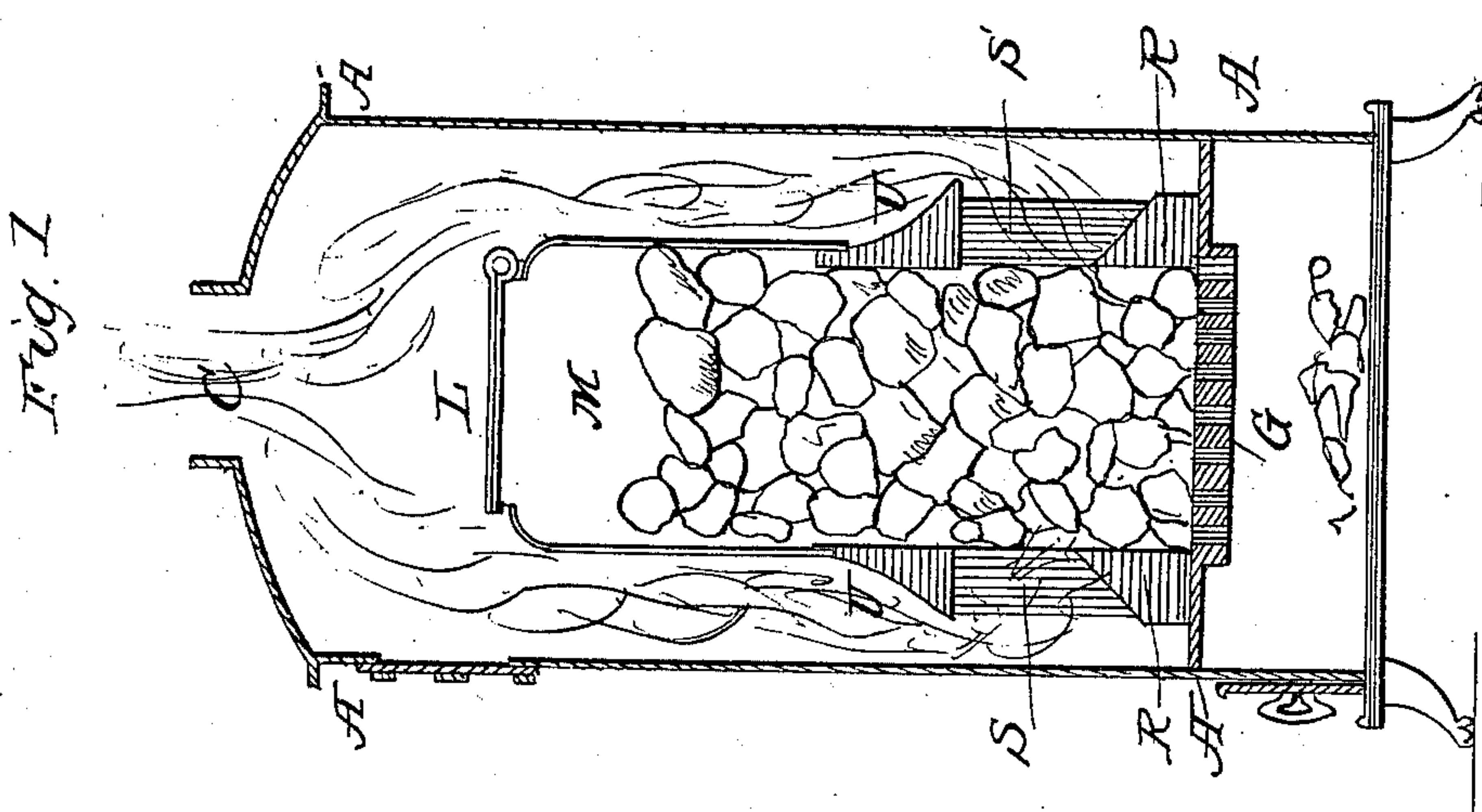


D. G. LITTLEFIELD.

Magazine Stove.

No. 32,635

Patented June 25, 1861.



Witnesses
Edward Wilson
Philip Fitzsimon

Inventor
Dennis G. Littlefield

UNITED STATES PATENT OFFICE.

DENNIS G. LITTLEFIELD, OF ALBANY, NEW YORK.

FIRE-POT FOR COAL-STOVES.

Specification forming part of Letters Patent No. 32,635, dated June 25, 1861; Reissued August 4, 1863, No. 1,516.

To all whom it may concern:

Be it known that I, DENNIS G. LITTLEFIELD, of the city and county of Albany, State of New York, have invented a new and useful Improvement in the Construction of Cylindrical or other Formed Grated Fire-Pots, Designed and Adapted for Base-Burning Coal-Stoves; and I declare the following specification, with the drawing hereto attached as part thereof, to be a full and perfect representation of my invention.

Figure 1, represents a baseburning stove in section; A, A, is the outer, or radiating shell of the stove, U, R, the fire-pot, fed with coal from magazine M, the coal lying upon a grate G, in the usual way. The flame and gases instead of passing upward through the mass of coal, the magazine being closed by a lid L, through which the fuel is supplied, passes out laterally at the base of the fire pot, through a series of outlets formed by vertical bars S, and so out into the radiating chamber, between magazine M, and the shell A, and upward into the chimney C. In all stoves of this sort, the fire-pot and bars forming the outlets, have been made of iron, as I myself have used them in my stoves as patented January 1854, and April 1851. The manifest defect of their metallic material, is the facility with which they are burned up by being enwrapt in flame, and the consequent expense of their replacement. My invention is intended to remedy this evil, and the method of doing it, is shown in Figs. 2, and 3, Fig. 2 being a perspective view of a fire-pot constructed on my improved plan; Fig. 3, a horizontal section of Fig. 2, in the line *a, b*, near the base of the grate bars; similar letters in the figures referring to the same parts of the apparatus.

So much of the fire-pot as is of iron, is constructed in two parts, an upper part U, intended to receive at its top the coal magazine M, and at its lower edge, the upper ends of the grates S, the lower part, or ring R, holding within recesses in its upper edge, the lower ends of the said grates, or bars. These grates S, are to be made of soap stone, fire clay, or of any noncombustible material, molded into suitable prismatic bars, (cylindrical or oval may be used) as shown; their upper and lower ends being suitably fitted

into socket holes made to receive them within the upper and lower edge of the sections composed of iron; and the entire structure being held together by screw rods, or any suitable appliances.

It will be seen from this description, that I construct the grate bars for my base burning fire-pot, of an incombustible material, that with care will last for a long time; outlasting many series of iron bars; thus furnishing a much better and cheaper article for its intended purpose than has ever before been done.

The drawing shows a cylindrical grated fire-pot, with vertical bars, but its cylindrical form may be changed to an oval, oblong or square; having outlets surrounding it, as shown in the drawing, or only a part of its surface perforated and made into a grate, to adapt it to the form of the stove to be constructed. The bars S, may be changed to a horizontal, or oblique position, as circumstances may require; but the cylindrical form is the most simple, and in practical use, the most substantial, and durable.

Having thus fully described my invention, I do not limit myself to the precise form shown in the drawing; as my improved fire-pot constructed under any of the known forms, will, in its action, cause the burning gases and highly heated products of combustion, on passing outward between the bars of a perforated, or grated fire-pot, to completely envelop the bars, and soon cause them to burn out if made of iron.

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

In the construction of base burning stoves as arranged and fitted substantially according to the specification in my Letters Patent of January 24th 1854, the combination of the supplying cylinder M, with the rings, or framing, U, R, constructed as described in this specification, so as to admit of the use, removal, and replacement, of separate bars of soap stone, fire clay, or analogous heat resisting substances.

DENNIS G. LITTLEFIELD.

Witnesses:

EDWARD WILSON,
PHILIP FITZSIMONS.