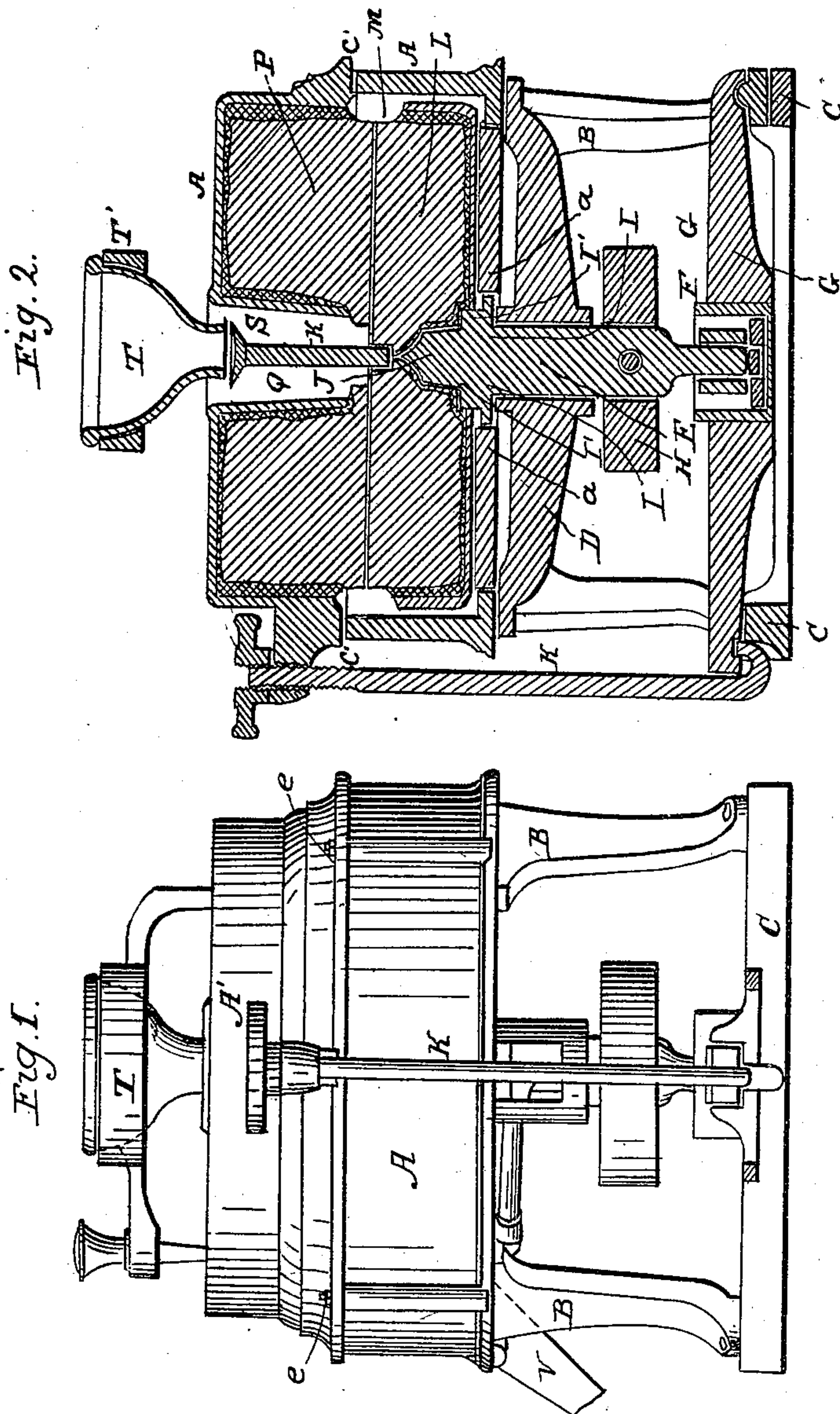


Portable Grist Mill.

2 Sheets—Sheet 1.

No. 25,144.

Patented Aug. -16, 1859.



Witnesses:

f. Brannin
Hochman

Inventions:

Henry W. Shapley
John Blair

SHIPLEY & BLAIR.

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Fig. 4.

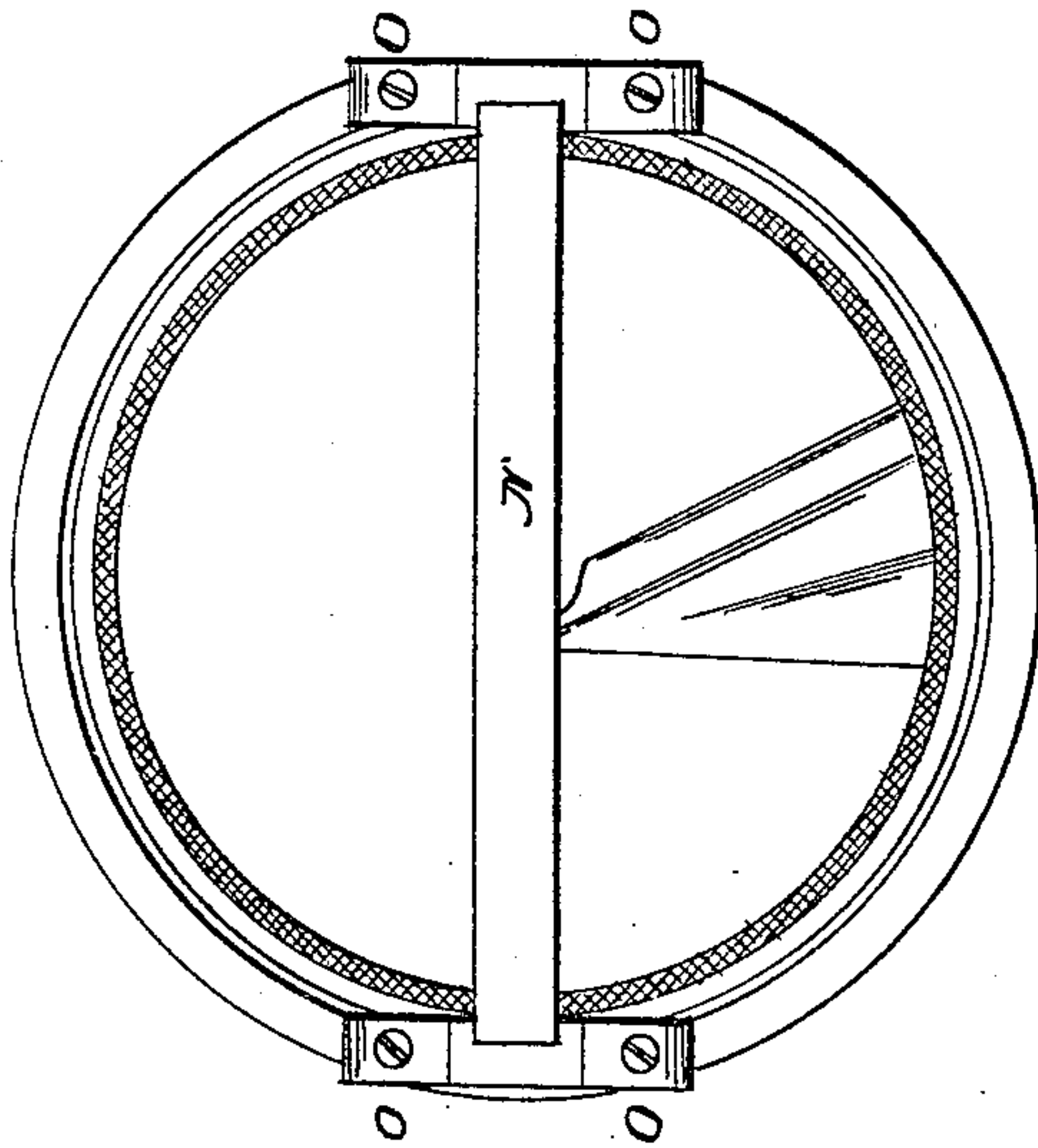


Fig. 3.

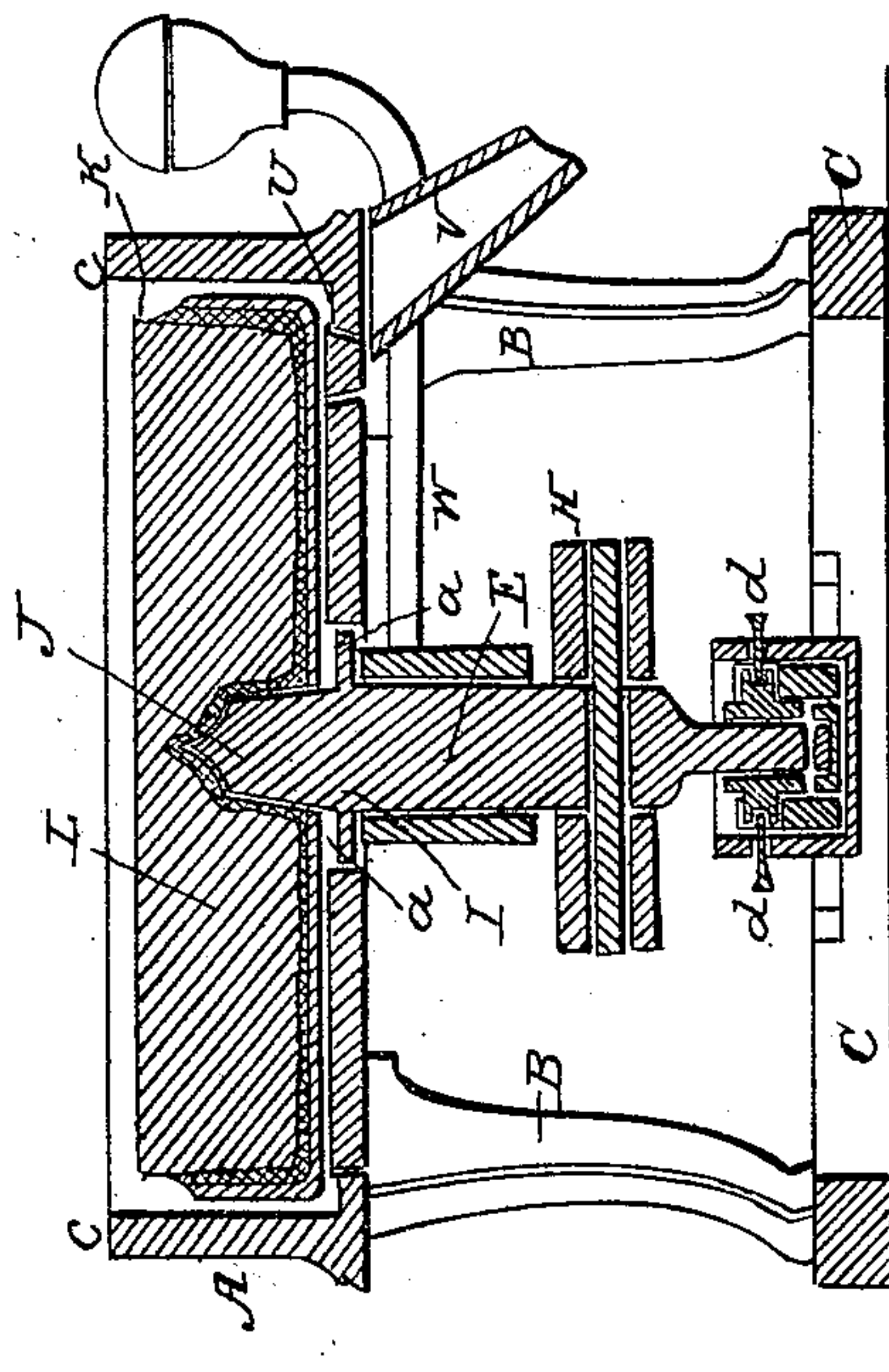
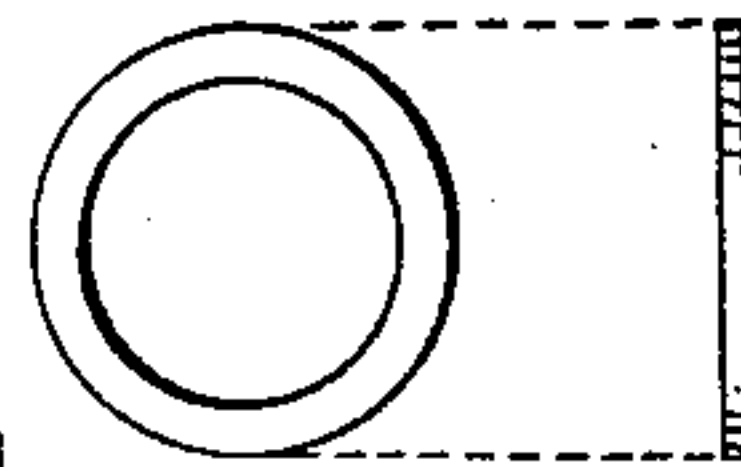


Fig. 5.



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Inventors:
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UNITED STATES PATENT OFFICE.

HENRY W. SHIPLEY AND ZOHAR BLAIR, OF MOUNT VERNON, OHIO.

PORTABLE IRON-HUSK GRIST-MILL.

Specification of Letters Patent No. 25,144, dated August 16, 1859.

To all whom it may concern:

Be it known that we, HENRY W. SHIPLEY and ZOHAR BLAIR, of Mount Vernon, in the county of Knox and State of Ohio, have invented new and useful Improvements in Portable Iron-Husk Mills; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation, Fig. 2 is a vertical section, Fig. 3 is a vertical section of the lower part in a direction at right angles to that shown in Fig. 2, and Fig. 4 is a top view of Fig. 3.

Like letters refer to like parts.

The nature of our invention consists in the construction of a portable iron husk, and such an arrangement of other parts connected therewith, that the whole is complete within itself, and needing only the attachment of a power, to put it into actual operation.

A, in the several figures, represents the lower husk. This is made of cast iron, and is supported upon four legs B, the feet of which are bolted to a square frame of timber, C.

D, represents the upper bridge tree, which supports the upper end of the spindle E. The lower end of this spindle rests in the box F, and is supported by the lower bridge tree G.

H, represents the pulley upon the spindle, by means of which, motion is communicated to the running stone. The bridge tree D, is bolted to the underside of the husk, A. Near the upper end of the spindle E, is a flange or collar I, the upper face of which is turned in a lathe, so that it revolves in a perfectly horizontal plane.

The upper end of the spindle terminates in a point J, upon which rests the lower and running stone. One end of the lower bridge tree is supported by a lighter screw K, by means of which the lower stone is elevated or depressed at pleasure.

L, represents the lower stone. This is placed in, and cemented to an iron cup M, which surrounds it upon all sides except the face, by means of gypsum or other cement, the cup M being fitted to rest freely upon the top of the spindle E, there being a projection I' upon each side of the spindle above the flange I, which fits into recesses formed

in the lower side of the cup M, thus the cup and stone, being firmly united, are caused to revolve with the spindle. That portion of the cup that is situated immediately above the collar I, is also turned in a lathe, so that the face of the flange or collar I, and under side of the cup, are exactly parallel, leaving a small space *a*, for the purpose hereinafter specified.

The upper margin of the lower husk A, is also turned in a lathe, so that the face *c, c*, is exactly at right angles with, or perpendicular to the spindle, when that is properly trammed, that is, the plane I should revolve in a plane exactly parallel to the plane *c, c*. The box F upon the lower bridge tree G, is so arranged by means of the pivots *d, d*, and adjusting keys, that the spindle can be trammed or adjusted, and so as not to cramp the box upon the spindle, by raising or falling the lighter screw, in setting the stone to a proper distance for grinding. The lower stone L, (the cup M being firmly united and forming a part of the same,) is now accurately balanced. It is then lifted from the spindle, and the parallel metallic washer Fig. 5, placed over the top of the spindle, and caused to rest upon the collar I. The washer being a little thicker than the space *a*, when the stone is again lowered its weight rests entirely upon the ring. The stone and spindle can now be revolved without rocking the stone, and it is now ready for staffing. This operation is necessary everytime the stone is faced or dressed. The upper portion of the husk A', forms also the cup into which the upper stone is cemented, by means of plaster or other cement. The face of this is turned in a lathe, so that the two surfaces of the husk A and cup A', fit accurately together, as seen at *c', c'*, Fig. 2, the two parts being held together by the bolts *e, e*, Fig. 1.

The upper stone, is of course stationary but its face must be dressed to a line parallel to the face of the husk, by means of the staff N. The upper stone is perforated, in the center as seen in Fig. 2 at Q. A standard R revolves with the lower stone, to which it is attached, and upon the top of this, is a concave disk S. The grain is received into an adjustable bowl T, the same being supported by the frame T'. When the mill is in motion, the grain is discharged from the revolving disk S, and the quantity is regulated by the distance between the disk

and the bowl, which can be regulated by means of a screw in one end of the frame T'.

The husk A, forms a trough U, into which the meal or flour is received, the same being discharged at the spout V. For the purpose of conveying oil to the upper portion of the spindle we introduce the tube W, leading from an oil cup, to the upper spindle box.

What we claim as our improvement and desire to secure by Letters Patent, is—

1. The husk A and cup A', composed of lower and upper sections, the same being turned and fitted together as described, and supported upon a frame C, for the purpose of making the whole portable and complete in itself.

2. We claim cementing the stone to the interior of the cup A' which also forms the upper husk, as specified.

3. We claim the cup M, constructed and fitted substantially as described, and cementing the stone thereto, so that both will revolve together.

4. We claim the bridge trees D and G, in combination with the husk A, cup A' and frame C, when arranged and operating substantially as set forth.

HENRY W. SHIPLEY.
ZOHAR BLAIR.

Witnesses:

J. BRAINERD,
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