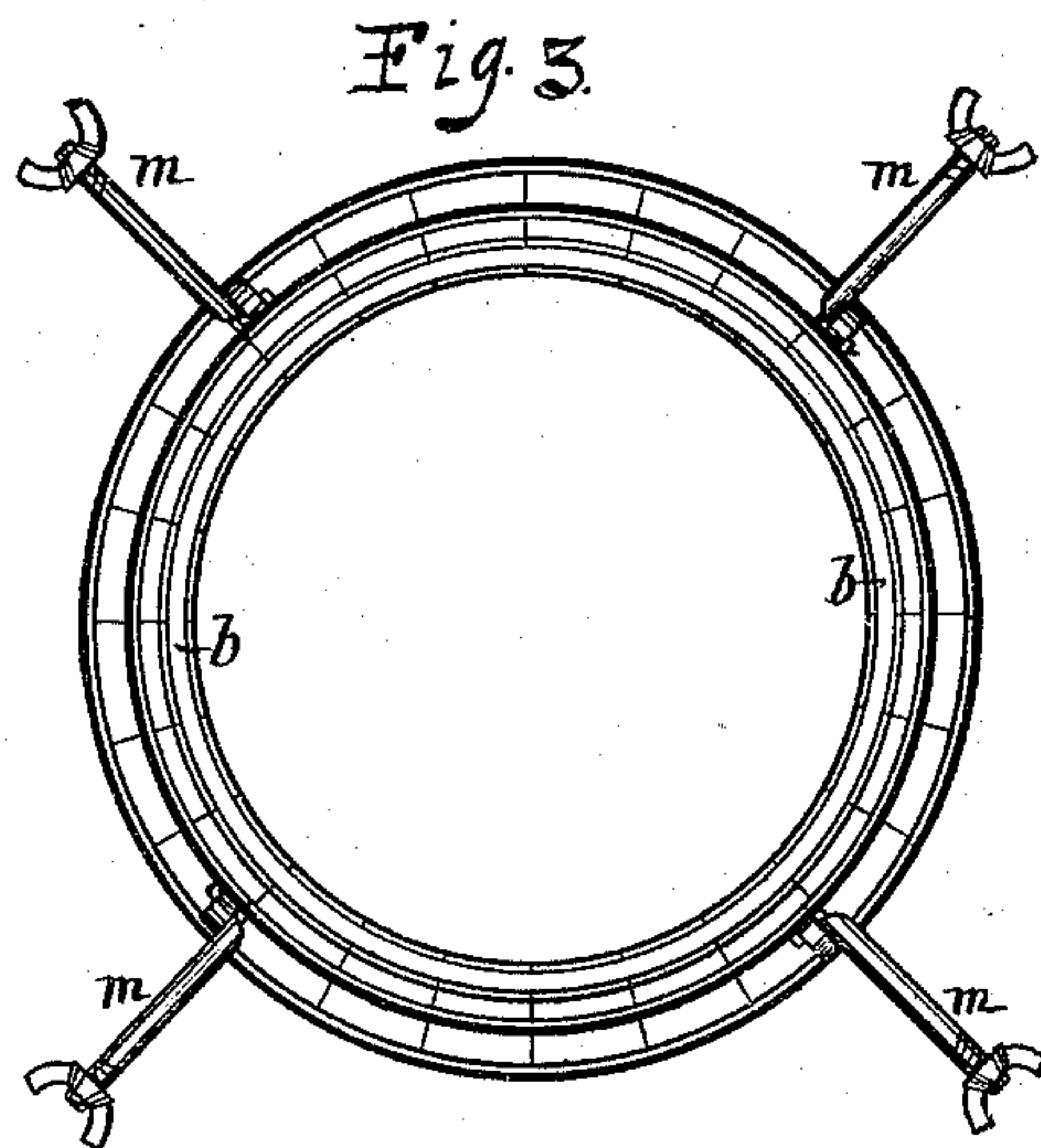
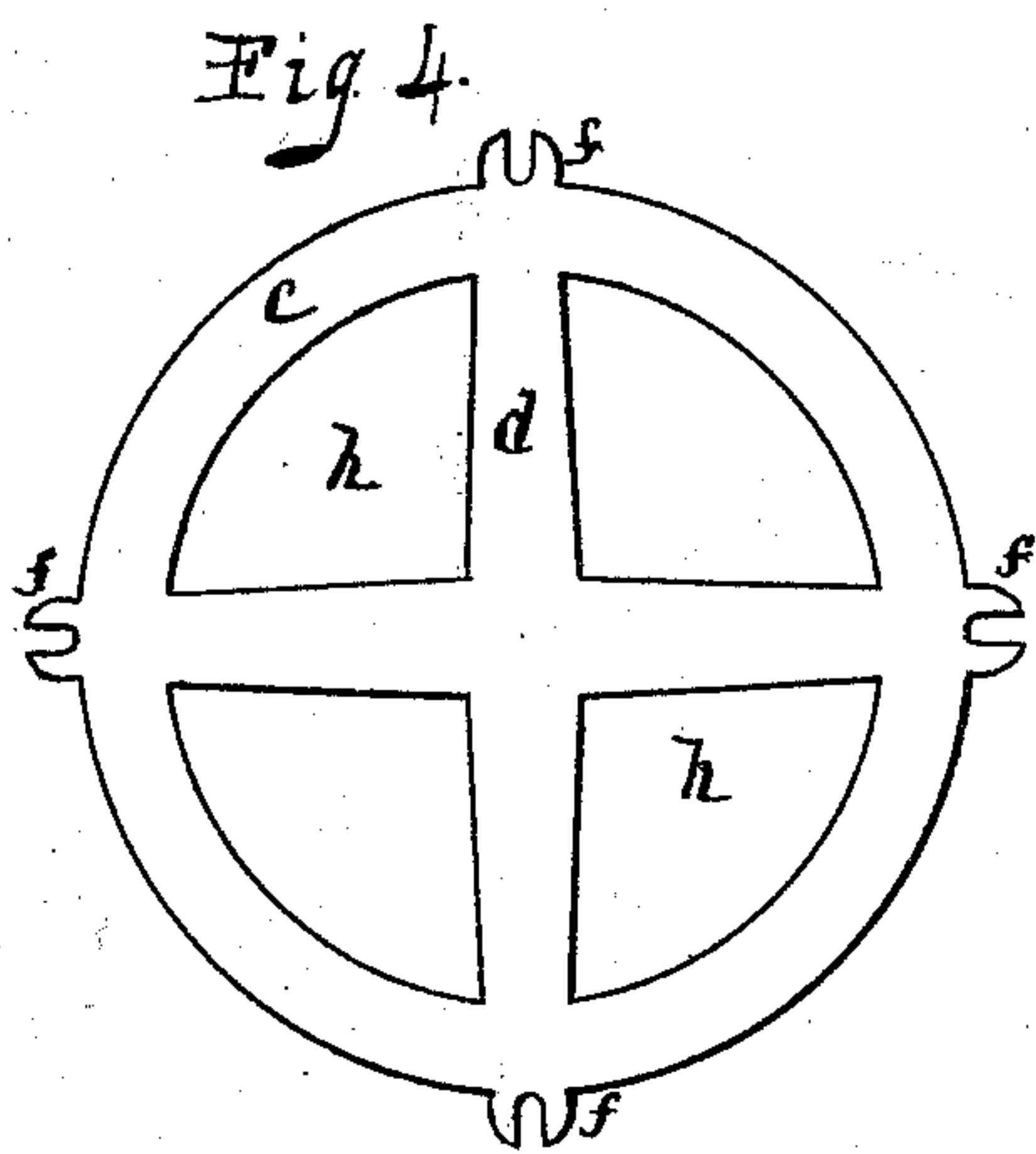
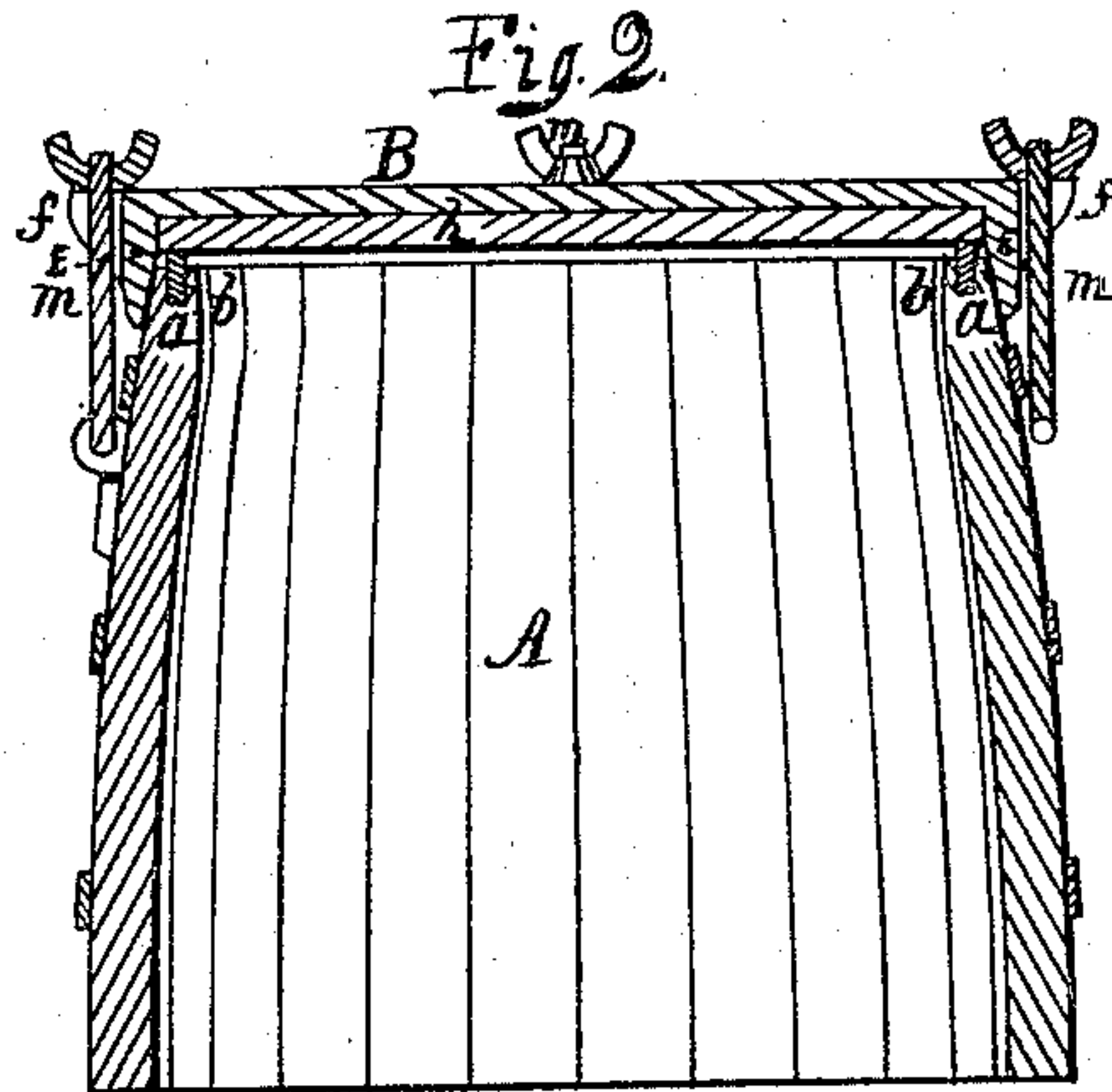
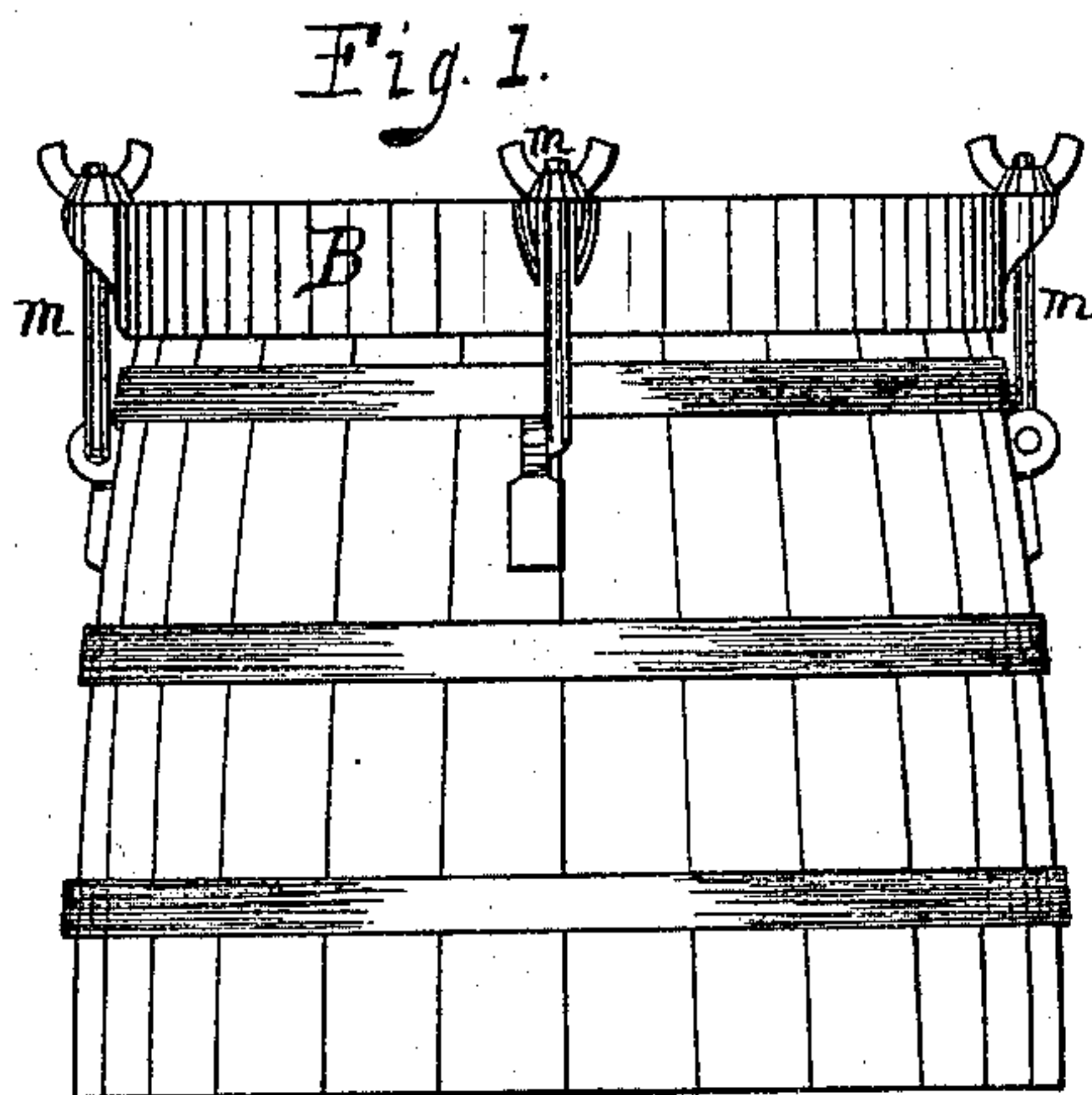


C. & G. L. FARMER.

CHURN.

No. 184,235.

Patented Nov. 14, 1876.



Attest
E. J. Behel.
A. O. Behel.

Inventors,
Chester Farmer
George L. Farmer.
Per Jacob Behel.
Atty.

UNITED STATES PATENT OFFICE.

CHESTER FARMER AND GEORGE L. FARMER, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN ROTARY CHURNS.

Specification forming part of Letters Patent No. **184,235**, dated November 14, 1876; application filed May 17, 1876.

To all whom it may concern:

Be it known that we, CHESTER FARMER and GEORGE L. FARMER, of the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Churns, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Our invention relates to that class of churns known as the revolving churn, which is usually of barrel form, fitted with trunnions on opposite sides about midway of its length, on which it is supported in a suitable frame, and fitted to revolve endwise, and is operated by means of a crank or cranks secured to the projecting end of one or both of the trunnions.

Our invention consists in the construction, arrangement, and application of the lid to such and similar vessels, and in the preparation of the vessel for the reception of the prepared lid, made removable, and when applied to be sufficiently tight to prevent leakage.

In the drawings, Figure 1 is an elevation of a portion of a churn of barrel form, consisting of the upper half with the lid in place. Fig. 2 is a central vertical section of the same. Fig. 3 is a view of the open end of the churn with the lid removed; and Fig. 4 is a view of the outside of the lid.

In the drawings, *a* represents the open-end half of a churn, which is of barrel form, constructed of staves jointed and bound together with hoops, in the usual manner of constructing such vessels. The ends of the staves forming the open end of the churn are grooved as at *a* to receive an elastic packing. *b* is a rubber packing, fitted in the groove *a*, and projects above the ends of the staves. *B* is a lid composed of two parts, the outer portion of which is a metallic ring, *c*, connected by

radial arms *d* and a downwardly-projecting flange, *e*, which overlaps the open end of the churn. This metallic portion is also provided with radially-slotted ears *f* to receive suitable clamping-rods to hold it in place on the churn. *h* is the wooden portion of the lid, fitted in the flange *e*, and resting against the radial arms *d* and ring *c*, to which it is secured by means of screws passing through the ring into the wooden lid. The lid *B*, as described, is placed on the churn with the flange *e* overlapping its open end, and the wooden lid resting on the elastic packing, as seen in Figs. 1 and 2. *m* are screw-threaded clamping-rods, secured to the sides of the churn by hinged connection in any suitable manner, and enter the radial-slotted ears *f*, and by means of the thumb-nuts on clamping-rods *m* the lid *B* is forced down onto the packing *b*, which completely prevents leakage.

In the employment of the metallic ring, provided with downwardly-projecting flange and radial arms, we are enabled to use a head of light material, as a thin wooden head, or a tin plate may be employed.

We claim as our invention—

1. The combination, in a churn, of the removable head *B*, composed of the ring *c*, radial arms *d*, flange *e*, and the inner head *h*, with the churn-body *A*, having groove *a* filled with the packing-ring *b*, as and for the purpose described.

2. In combination with the construction of the removable head *B* and churn-body *A* the hinged screw-rods *m*, constructed and operating as and for the purposes described.

CHESTER FARMER.
GEORGE L. FARMER.

Witnesses:

S. L. DALYMPLE,
EZRA G. BELKNAP.