

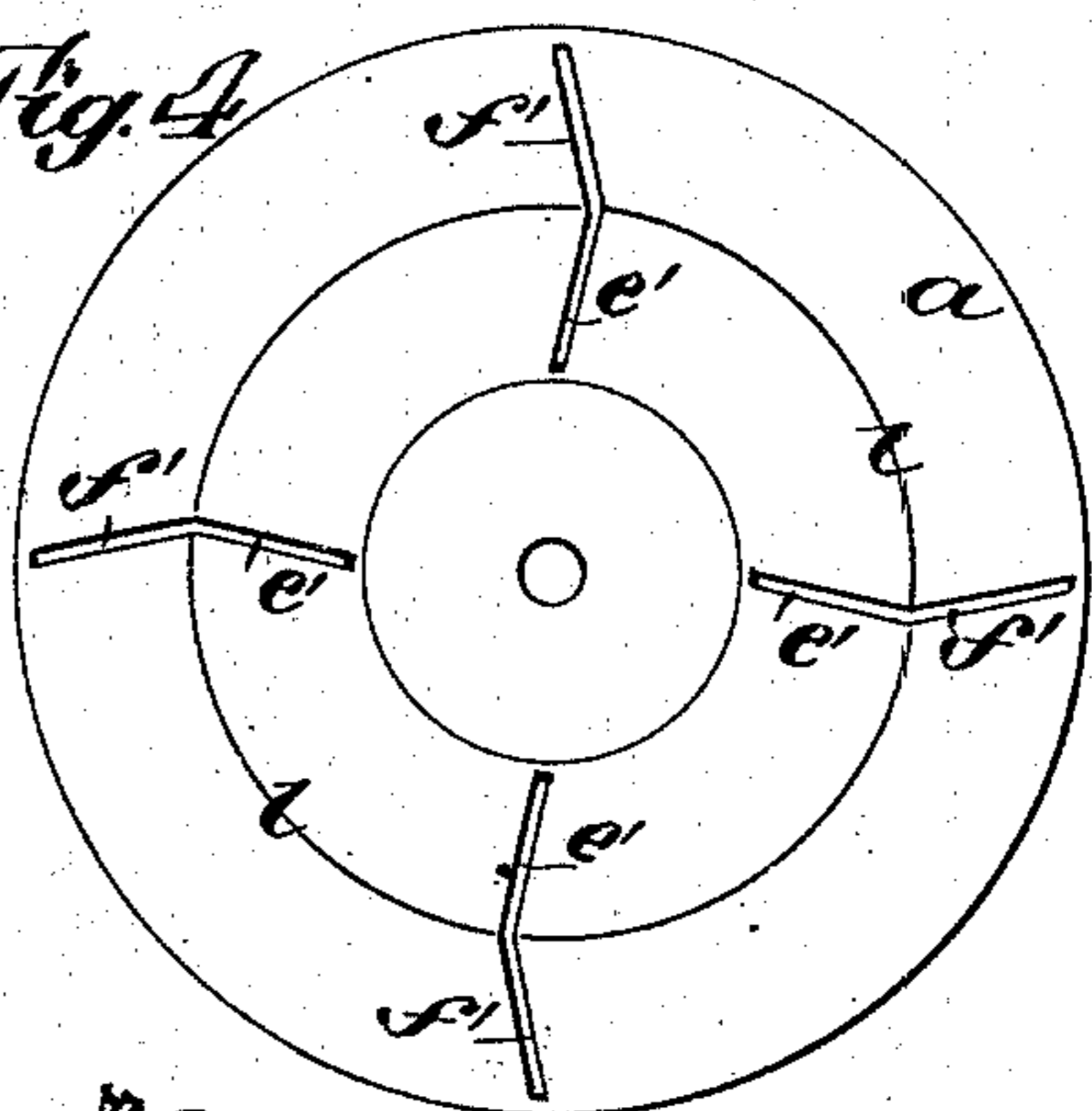
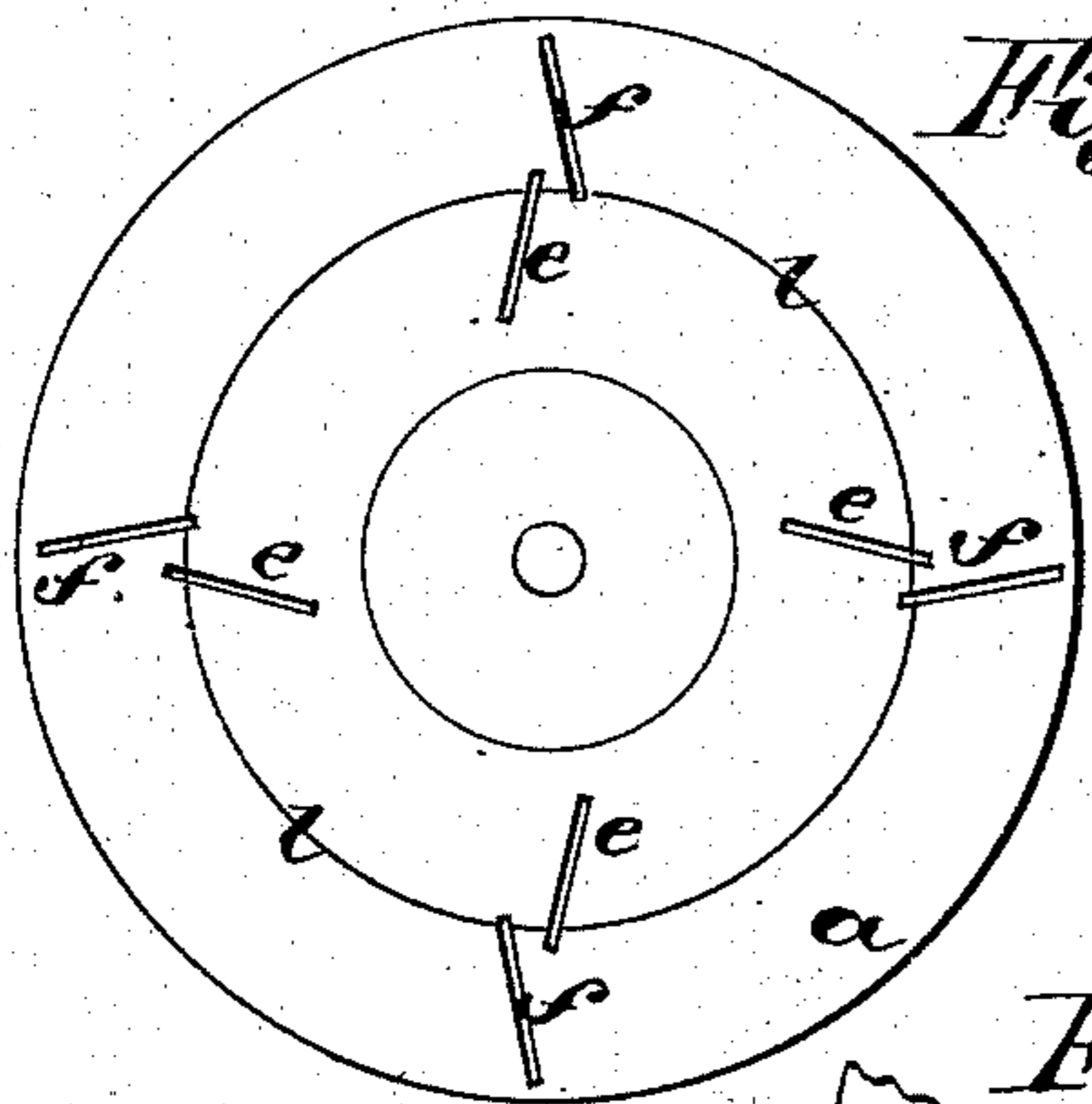
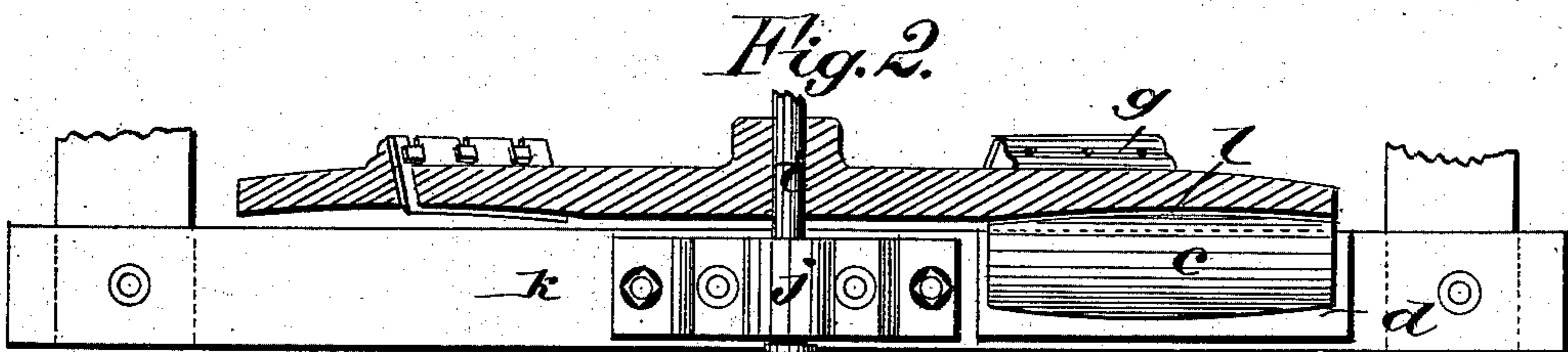
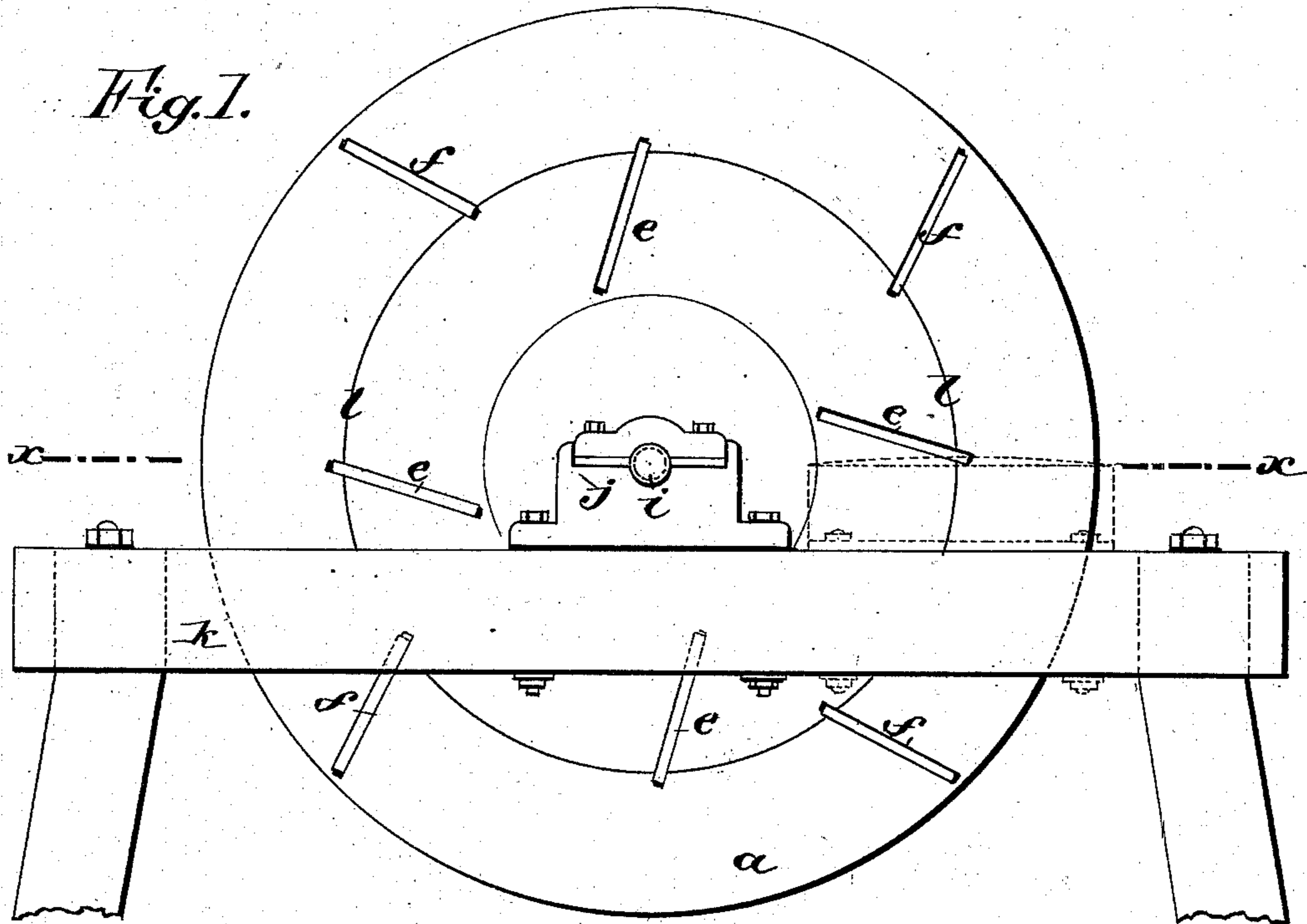
(No Model.)

J. F. & W. C. VOGT.

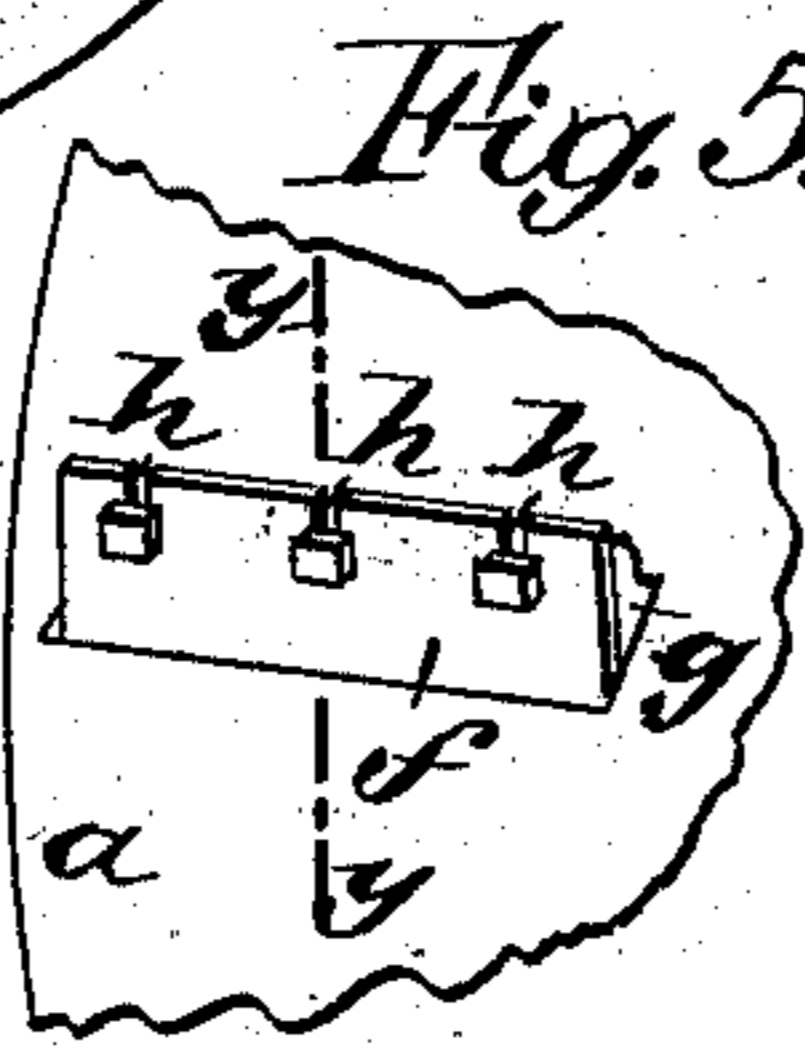
STAVE JOINTER.

No. 288,517.

Patented Nov. 13, 1883.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JULIUS F. VOGT AND WILLIAM C. VOGT, OF ST. LOUIS, MISSOURI.

STAVE-JOINTER.

SPECIFICATION forming part of Letters Patent No. 288,517, dated November 13, 1883.

Application filed April 7, 1883. (No model.)

To all whom it may concern:

Be it known that we, JULIUS F. VOGT and WILLIAM C. VOGT, both of St. Louis, in the State of Missouri, have invented a new and Improved Stave-Jointer, of which the following is a full, clear, and exact description.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of our improved machine. Fig. 2 is a horizontal section on line *xx* of Fig. 1. Figs. 3 and 4 are side elevations of the cutter-carrying disk or wheel, showing modifications of the cutters; and Figs. 5 and 6 are details, showing the manner of connecting the cutters to the wheel.

In the face of the wheel or disk *a*, which is employed to carry the cutters to dress the edges of the staves *c*, resting on a bed, *d*, we arrange two sets of cutters, *e f*, or single cutters having the edges formed in two different angles, *e' f'*, which are so inclined with relation to the bed *d*, which bed is radial to the wheel, or nearly so, and are also so arranged with relation to the two divisions of the stave from its center to the ends that both sets of cutters or both the edges of the single cutters begin the cut at the bilge of the staves and cut therefrom to the ends, so that they cross the grain in the direction that insures smoothness, and prevents tearing or splitting.

The face of the disk in which the cutters are set is concaved to suit the required bilge form of the edges of the stave, and two sets of cutters or cutting-edges cut from the center line, *l*, of said concave to the edges, respectively, the inclination of the cutters to the radius of the wheel being such that the ends of the cutting-edges terminating at said center first reach the staves and begin the cut at the bilge and then shear it therefrom to the ends, the cutters for the right-hand end of the staves being inclined upward to the right, and those for the left-hand end inclined upward to the left.

As in Fig. 1, the cutters of the different sets may be arranged widely apart, or they may be placed closer together, as in Fig. 3; or a single cutter-blade having reversely-inclined edges *e' f'* may be used, as in Fig. 4.

The cutters are bolted to the brackets or flanges *g* on the back of the disk, and project through slots to the cutting side, said cutters being notched or slotted at *h*, to be shifted on the fastening-bolts, as may be required for setting them up from time to time.

The disk *a* is mounted on a shaft, *i*, having a bearing at *j* on the bench *k*, and other required bearings, and also having a driving-pulley attached for rotating the disk by a belt.

A serious difficulty with these machines when cutting from the ends of the staves consists in the necessity of shifting the staves, when the cutters tear the edges, to set the grain to the line of the cutters, so that a gage is of very little use, the staves being uncertain and irregular as to the gage, some being wider at one end than at the other.

It will be observed that with cutters arranged as we have them a gage may be used, as the cutters tend to keep the staves pressed against the gage, whereby they will be uniform as to the width of the ends.

We are aware that it is not new in stave-jointers to arrange cutter-knives on the base of a cylinder contracted toward the middle, to suit the bilge of the staves, said knives being placed obliquely to its longitudinal plane and at an angle to its face corresponding to the inclination of the ordinary hand-plane; or to arrange two rotary concave cutter-disks facing each other upon a single shaft, each disk provided with knives arranged tangential to a circle of small diameter and described from the center of disk.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The combination, with a stave-holder, of a disk having a circular channel in its face, concentric with the center of the disk, made concave to suit the bilge of a stave, and having two sets of jointing-cutters, both inclined backwardly from the bilge-line *l*, one inwardly and the other outwardly, whereby each stave will be jointed from the bilge-line toward both ends, as described.

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WILLIAM C. VOGT.

Witnesses:

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