

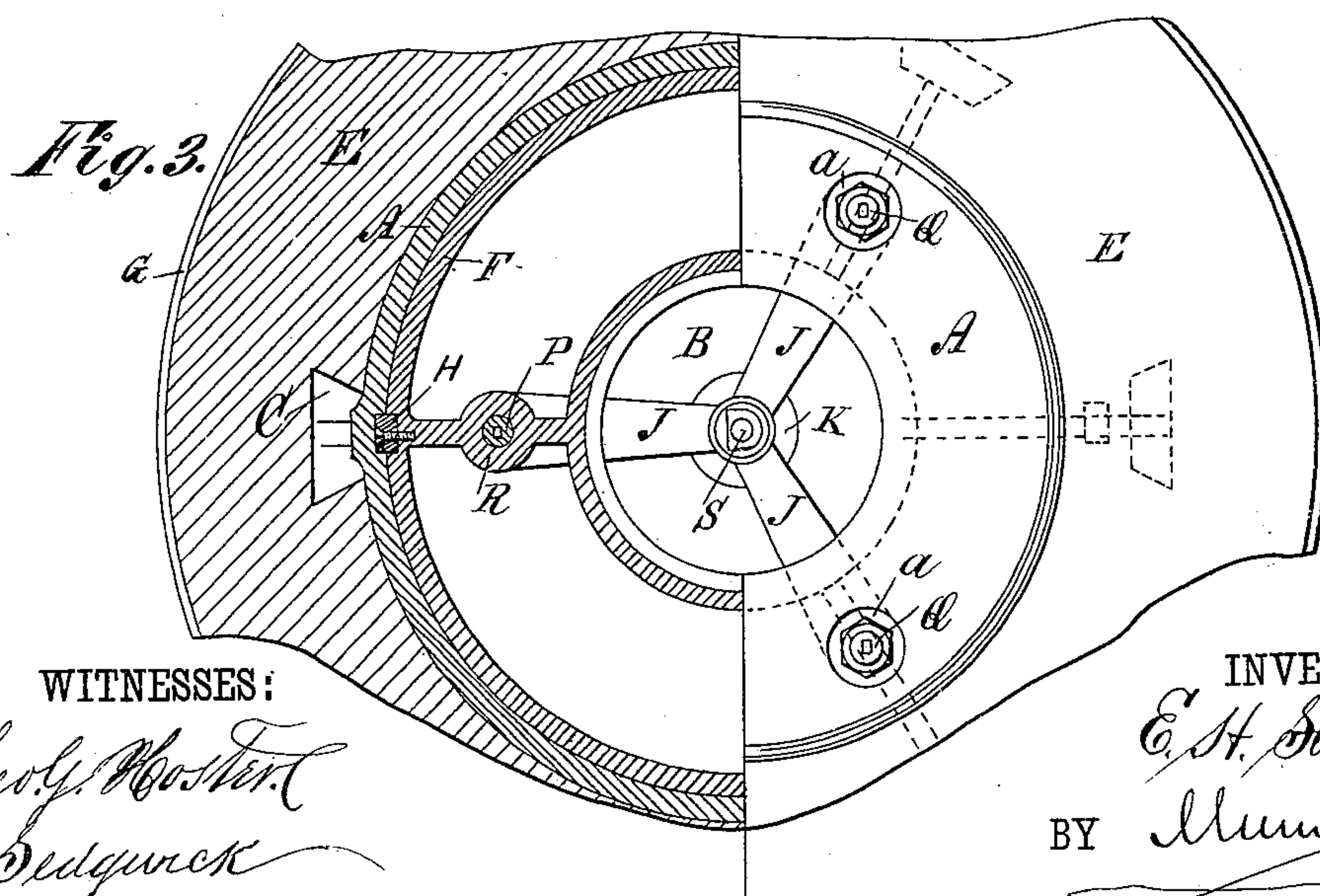
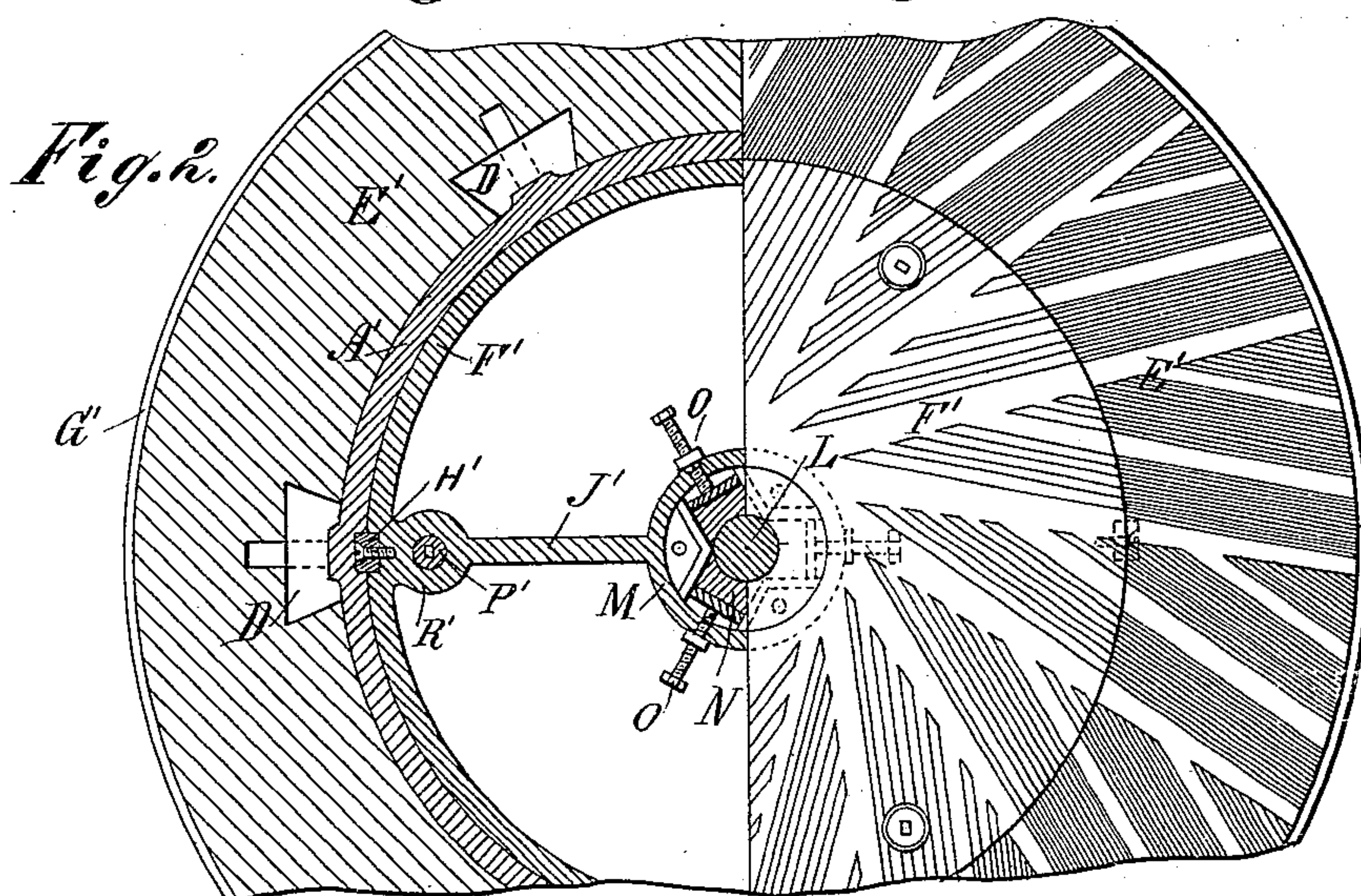
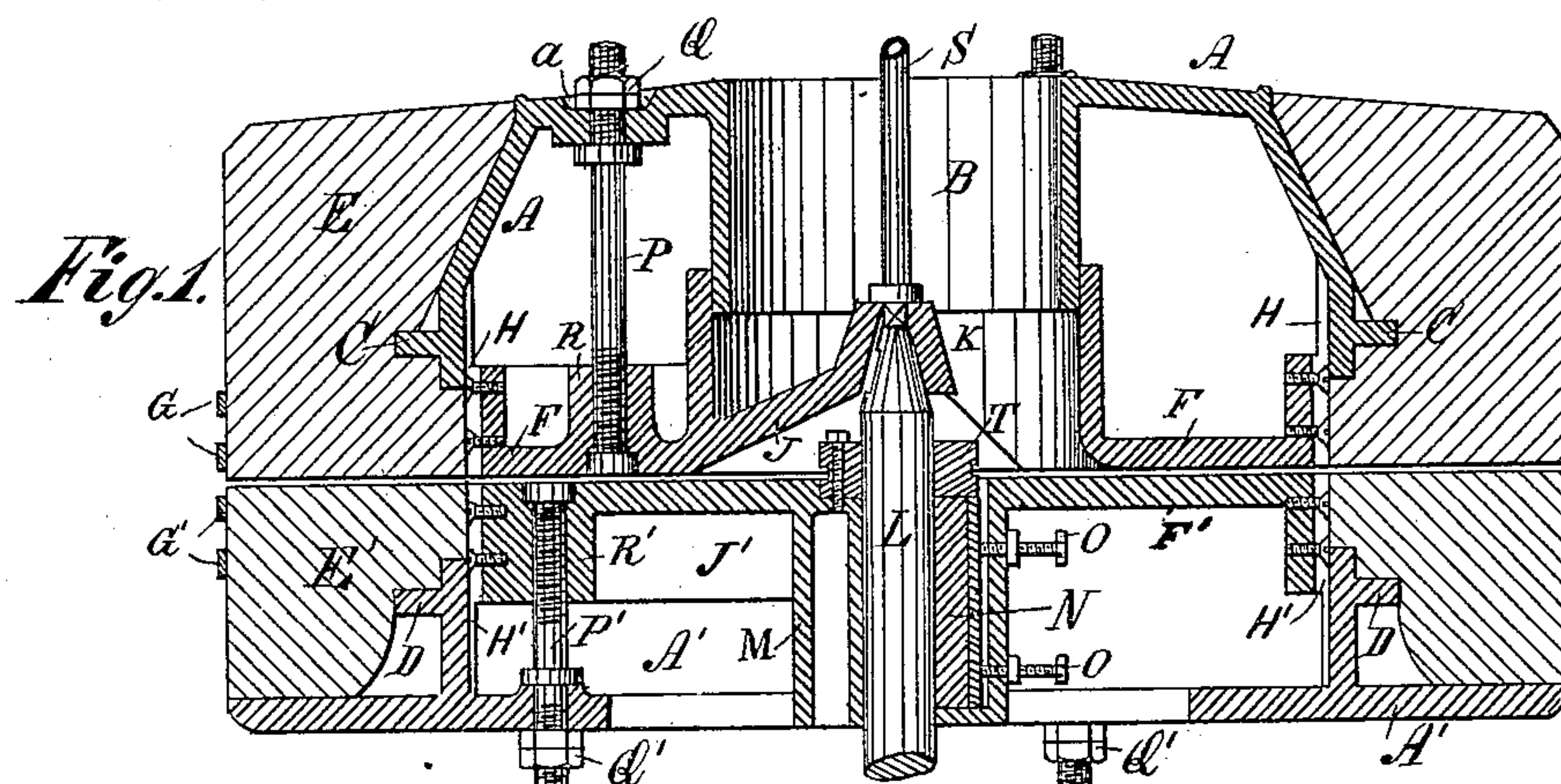
(No Model.)

2 Sheets—Sheet 1.

E. H. STREITZ.  
MILLSTONE.

No. 246,835.

Patented Sept. 6, 1881.



WITNESSES:

*Thos. J. Hostet.*  
*C. Sedgwick*

INVENTOR:

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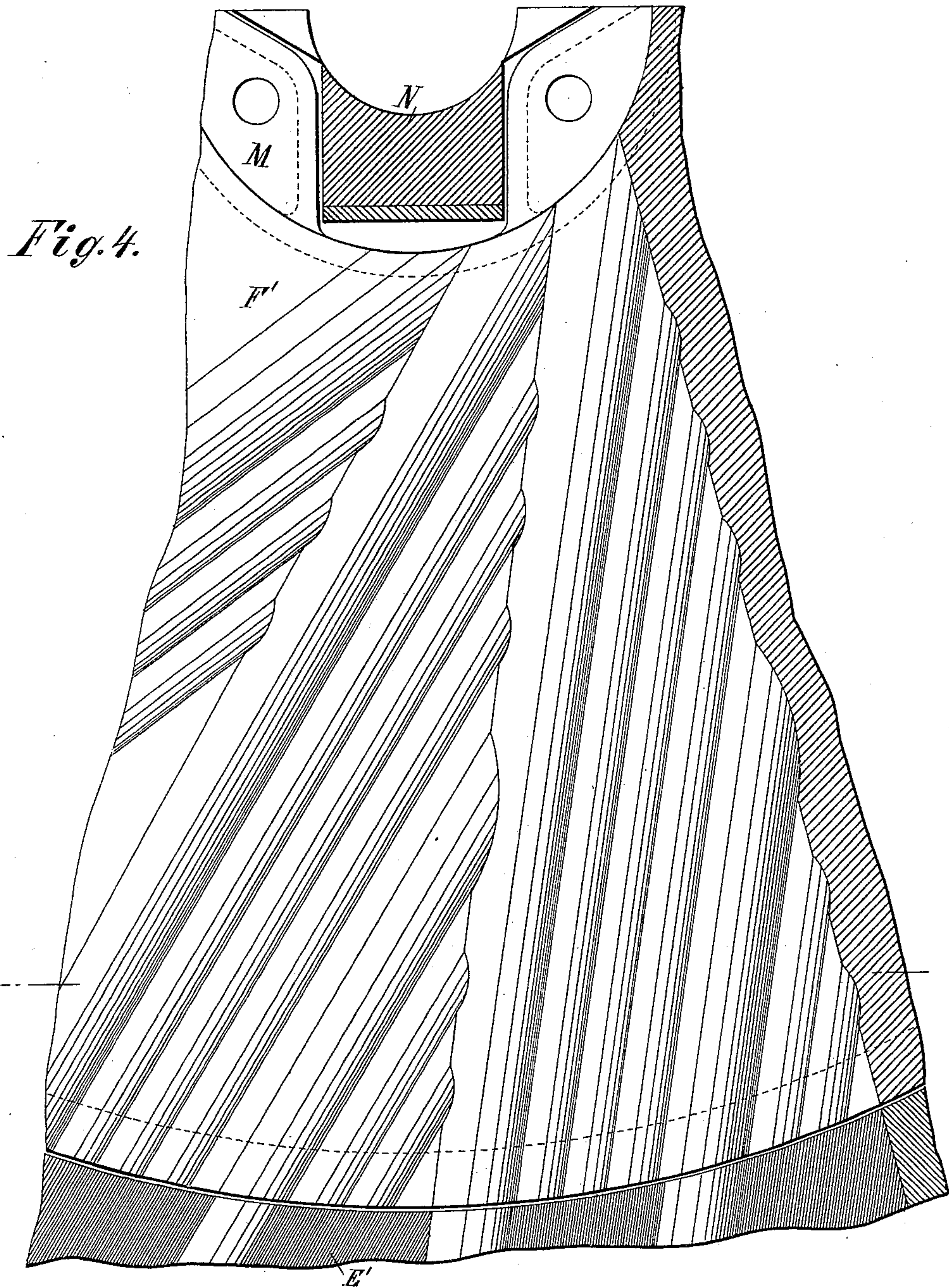
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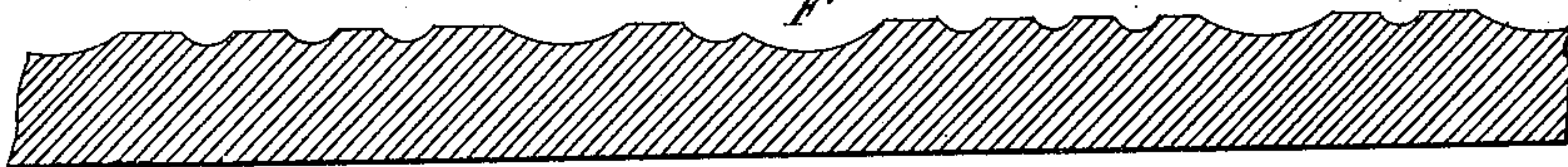
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*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

EMIL HERMANN STREITZ, OF RAUSCHMÜHLE NEAR FREIENWALDE,  
POMERANIA, GERMANY.

## MILLSTONE.

SPECIFICATION forming part of Letters Patent No. 246,835, dated September 6, 1881.

Application filed May 11, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, EMIL HERMANN STREITZ, of Rauschmühle, near Freienwalde, in the Province of Pomerania, Germany, have invented certain useful Improvements in Millstones, of which the following is a specification.

The object of my invention is to provide a new and improved millstone which facilitates the adjustment of the grinding-surfaces and is more economical than the millstones in use heretofore.

In the accompanying drawings, Figure 1 is a cross-sectional elevation of my improved millstone. Fig. 2 is a partial plan view and horizontal sectional view of the fixed lower stone. Fig. 3 is a partial plan view and horizontal sectional view of the revolving or upper stone. Fig. 4 is a detail plan view of the lower stone, its central part, and core. Fig. 5 is a cross-sectional elevation of the same.

Similar letters of reference indicate corresponding parts.

The central parts of the millstones are composed of annular shells A A', with the central eye, B, and with a series of projections, C, at the lower edge of the shell A of the upper stone and projections D D at the lower edge of the shell A' of the lower stone. The annular grinding-stones E E' are built up around the central shells, A A', of blocks, which are cemented and held together by external iron rings or bands, G G', these blocks of stones resting on the projections C and D respectively. Central annular frames, F F', or plates with flanges of steel or chilled iron, fit into the shells A A', and are provided with feathers H H' in the outer ring-surface, these feathers fitting into corresponding grooves in the adjoining inner ring-surface of the shells A A', thus permitting the shells A A' (carrying the grinding-stones) to slide vertically on the frames F F'; but these frames cannot turn independently of the shells A A'.

The central frame or plate, F, of the upper revolving stone is provided with a series of arms, J J, attached to a central cap, K, resting on the top of the spindle L, and thus forming the balance-rynd of the upper revolving stone. These arms can be cast integral with the central frame or plate and the cap or bearing K,

or may be attached to the same by means of bolts. The central frame or plate of the fixed lower stone is connected with the central core or wedge-box, M, by a series of arms, J' J', which may be cast integral with the central frame or flanged plate and the wedge-box M, or may be fastened thereto by means of bolts.

The wedge-box M contains a set of wooden wedges, N, with locking-screws O, for adjusting the position of the spindle L in the eye or core of this lower fixed stone. The central frames or flanged plates, F F', are connected with the shells A A' by means of a series of heavy bolts, P P', provided at the outer threaded ends with nuts Q Q', resting in recesses a of the shell A, whereas the inner threaded ends of these bolts take in threaded apertures in sockets or projections R R' on the inner surfaces of the plates or frames F F'.

A feeding device of any well-known kind, as may be desired, is attached to a rod, S, inserted in an aperture in the top of the central cap, K, or bearing of the balance-rynd, this feeding device being within or directly above the eye B. The central frame or plate, F', of the fixed lower stone is provided with a small stuffing-box, T, to prevent the flour from dropping through the core or wedge-box M. The adjoining surfaces of the central frames or plates, F F', are burred in the same style as the grinding-stones E E'; but the burrs of these central frames or plates are not as fine as those of the stones, for a reason that will be set forth hereinafter. The burred surface of the plate or central frame, F', of the lower stone is entirely level, and is wider than that of the central plate, F, of the upper stone, for it extends from the core or wedge-box M to the stone-ring E'. The central plate, F, of the upper stone, E, is about one-half as wide, and the arms J are inclined upward to form an unobstructed space upon the plate F', upon which the grain can drop.

It is well known that the outer part of the grinding-surface of millstones wears out first, whereas the central part of the grinding-surface remains quite intact; but in order to have a level grinding-surface the entire surface of the millstones in use heretofore had to be dressed, which involved a considerable amount of time



and labor and was very expensive, as the central part of the stone, which never became worn off, had to be cut away. This is an item of considerable importance, as millstones are expensive.

In my improved millstone the surface of the annular grinding-stone only needs to be dressed, and the dressed surfaces of the annular stone and the burred surfaces of the central frames or plates, F F', are brought to the same level by lowering the shell A and the annular stone E suspended thereon on the central frame, F, which is accomplished by loosening the nuts Q more or less; and in like manner the shell A' and the annular stone E' are raised more or less by drawing the nuts Q' of the bolts P' up tighter. The burred surfaces of the central frames or plates, F F', require no adjustment, as they do not wear off, being made of steel or chilled iron.

The bolts P P' and nuts Q Q' will hold the shells A A' and central frames or plates, F F', in any desired position in relation to each other. The blocks forming the annular stones E E' are united by some suitable cement or by plaster-of-paris. As the rough grinding takes place on the middle of the stone and the fine grinding near the edge, this latter part of the stone must be burred finer than the central part.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the annular grinding-stones E E' and the external iron bands,

G G', of the central shells, A A', provided with the projections C D, substantially as and for the purpose set forth.

2. The combination, with the shell A, the revolving stone, and the spindle L, of the central grinding-frame, F, provided with the arms J and cap K, substantially as and for the purpose set forth.

3. The combination, with the shell A' of the fixed stone, of the central grinding-frame, F', provided with the arms J and the wedge-box M, having locking-screws O, substantially as and for the purpose set forth.

4. The combination, with the stones E E', of the shells A A' and frames F F', connected by bolts and nuts, the bolts working in sockets R R' of the frames and the nuts in recesses a of the shells, as shown and described.

5. In a millstone, the combination, with the annular stone E, of the central shell, A, the central plate or frame, F, fitting within the shell A, and the feathers H of the frame F, fitting in grooves in the shell A, substantially as herein shown and described, and for the purpose of permitting a vertical adjustment of the shell A on the frame F and preventing the latter from rotating independently of the former, as set forth.

This specification signed by me this 5th day of February, 1881.

EMIL HERMANN STREITZ.

Witnesses:

FRANZ SCHULTZE,  
BERTHOLD ROI.