

No. 674,932.

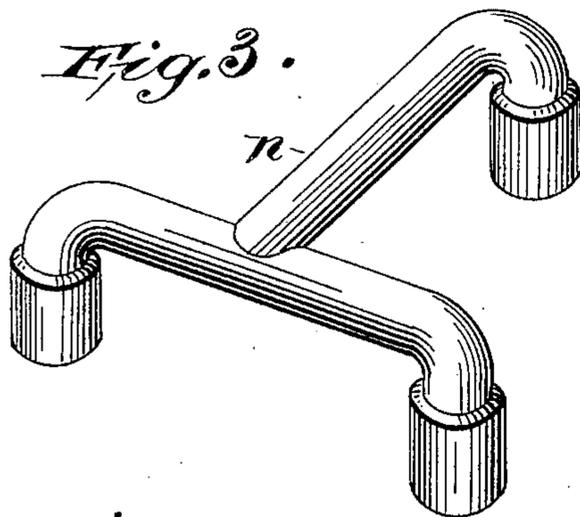
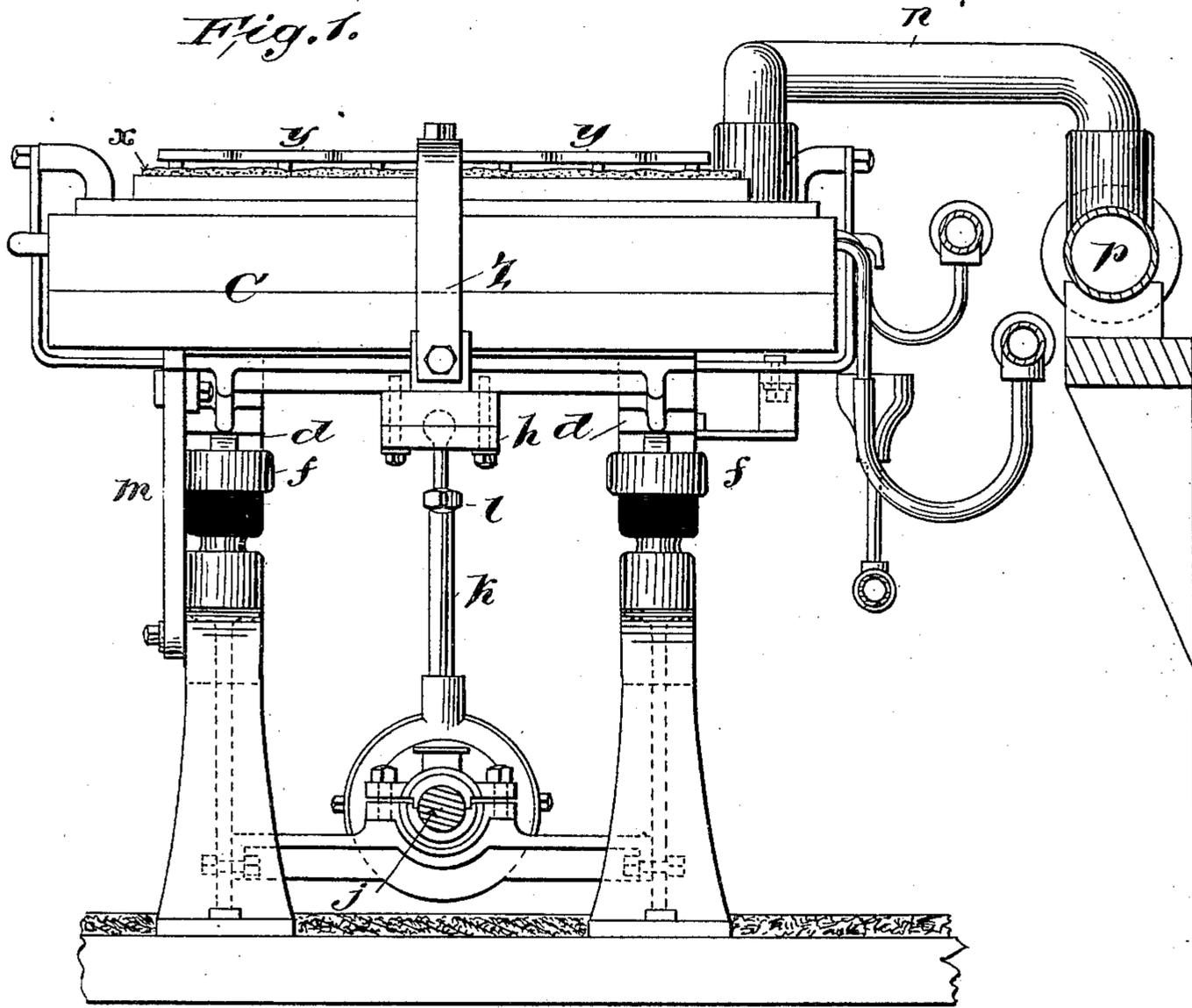
Patented May 28, 1901.

M. MAURAN.
ELECTROLYTIC CELL.

(Application filed Oct. 10, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES
C. M. Benjamin
Henry Samuel Morton.

INVENTOR
Max Mauran
by Harold R. [Signature]

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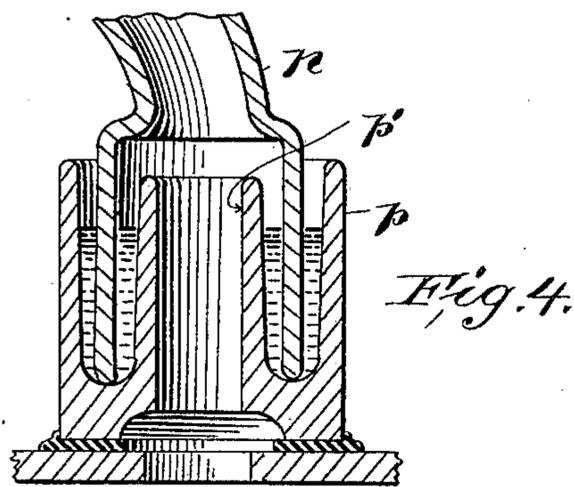
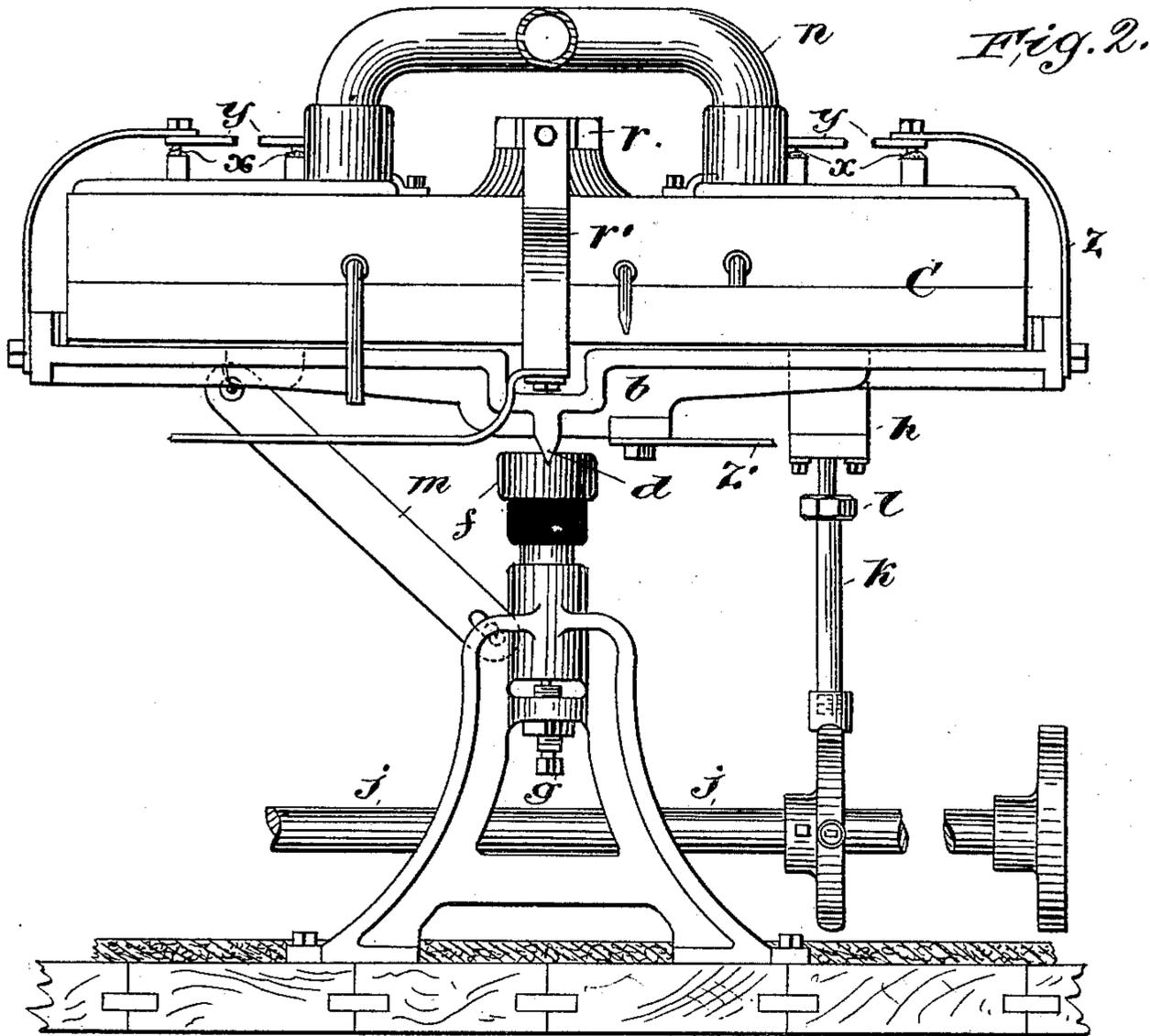
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

MAX MAURAN, OF NIAGARA FALLS, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO CASTNER ELECTROLYTIC ALKALI COMPANY, OF VIRGINIA.

ELECTROLYTIC CELL.

SPECIFICATION forming part of Letters Patent No. 674,932, dated May 28, 1901.

Original application filed March 26, 1900, Serial No. 10,220. Divided and this application filed October 10, 1900. Serial No. 32,623. (No model.)

To all whom it may concern:

Be it known that I, MAX MAURAN, a citizen of the United States, and a resident of Niagara Falls, New York, have invented certain new and useful Improvements in Electrolytic Cells, of which the following is a description, referring to the accompanying drawings, which form part of this specification.

The invention is especially adapted for oscillating cells designed for the electrolytic decomposition of common salt and other compounds of the halogens and the alkalis. Examples of such cells are set forth in the United States patents to Castner, Nos. 518,135 and 528,322; but the invention is not restricted to such use.

The object of the invention is to improve the movable gas connections of the oscillating cell.

This application is a division of my application, Serial No. 10,220, filed March 26, 1900.

In the drawings, Figure 1 is an end view of the improvement as applied to one form of oscillating cell. Fig. 2 is a side elevation of the same. Fig. 3 is a perspective view of the connecting-tube apart from the cell. Fig. 4 is a detail in section of the movable gas-tight joint.

It is desirable to collect the gas from the two gas-producing chambers of the cell in a cheap, convenient, and efficient manner, and it is necessary to have a connection which shall readily adjust itself to the motion and to various positions of the oscillating cell, which shall be sealed or luted, so as to prevent the escape of the gas at the movable or articulate points, and which shall also be readily detachable in order to disconnect the cell.

My new gas connection is free to move and is supported at three points only, so as to allow a relative rising and falling of any of the three points and the slight inclination of the cell in any direction. In the drawings this connection is shown of T form. The shank of the T extends down into a water or liquid

seal, as shown in Fig. 4, upon the stationary gas-educting pipe *p*. The two arms of the T turn downward and extend, respectively, into two similar seals in the covers *q* of the two gas-producing compartments of the cell. Preferably these seals or lutes are so designed that the free passage-way for the gas is of equal diameter within the T and within the seal, as shown in section in Fig. 4. The flanged end of the connecting-pipe *n* rests loosely in the trough-shaped channel in the projection or cup *p* on the cover of the cell in such a manner that the sleeve *n* is capable of both a vertical and a horizontal movement to accommodate itself to the several positions that the cell assumes when oscillated by the shaft *j*. The annular channel is filled with water, as will be readily understood, to a height sufficient to keep the end of the T-shaped connection submerged when the cell is inclined to its maximum and is of sufficient breadth to accommodate the extreme relative movements of the pipe *n* within it.

Having now set forth one preferred form of my invention and explained in what manner it may be applied to one form of cell, I claim, without enumerating the many modifications that may be made, the following:

In combination with a gas-conducting pipe provided with a gas-aperture, and a movable cell having two gas-apertures, a gas-conducting connection having three mouths for the three apertures and resting in liquid seals around the apertures, whereby the connection has three points of independent support in the immediate vicinity of the aperture and freely follows the movements of the cell, substantially for the purposes set forth.

Signed this 11th day of September, 1900, at Niagara Falls, New York.

MAX MAURAN.

Witnesses:

G. M. TUTTLE,
ANNIE V. MULLIN.