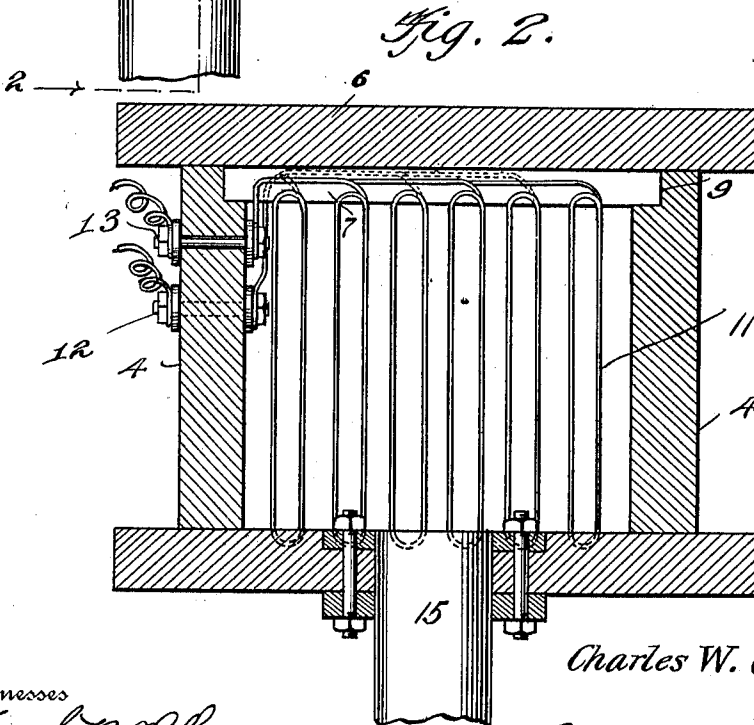
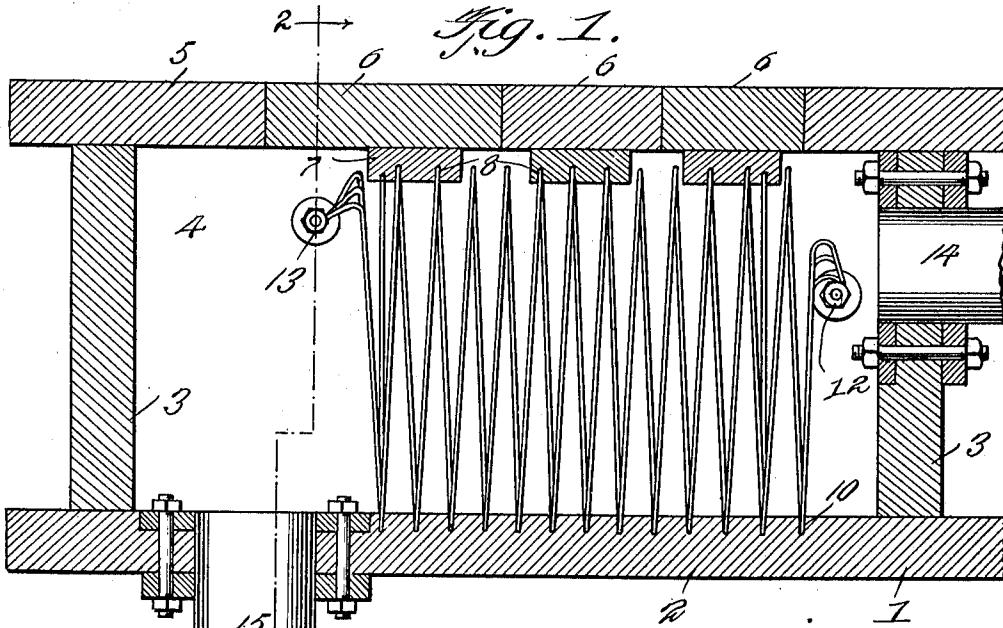


C. W. CLARK.
PURIFIER.

APPLICATION FILED SEPT. 3, 1909.

984,472.

Patented Feb. 14, 1911.



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Witnesses
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CHARLES W. CLARK, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
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PURIFIER.

984,472.

Specification of Letters Patent. Patented Feb. 14, 1911.

Application filed September 3, 1909. Serial No. 515,997.

To all whom it may concern:

Be it known that I, CHARLES W. CLARK, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Purifiers, of which the following is a specification.

The invention is directed to an improvement in purifiers, and particularly directed to an electrolytic device in which the fluid to be purified is subjected to the action of a current in its passage through the purifier.

The main object of the present invention is the provision of an electric purifier in which a series of independent coils are arranged in spaced relation and connected in multiple to the terminals of the current conductors, means being provided whereby convenient access is provided to the coils and interior of the purifier for cleaning and repair.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a longitudinal section, partly in elevation, of the improved purifier. Fig. 2 is a transverse section of the same.

Referring particularly to the accompanying drawings, the improved purifier comprises a receptacle 1 of appropriate size, including a bottom 2, end walls 3, side walls 4, and a top 5. The top is made up of a series of independent sections 6, the ends of which rest upon the side walls and form, when in place, a liquid tight top. Any form of fastening means may be provided for securing the sections 6 in proper position, and if desired the adjacent sections may have hinged connection with each other for convenience in operation. On the bottom of each section, and projecting longitudinally thereof and thereby transversely of the receptacle 1, are supporting cleats 7, in each of which are formed a series of longitudinally disposed grooves 8. The cleats are of less length than the sections and are preferably seated at their ends in recesses 9 formed in the inner upper surfaces of the side walls 4.

The bottom wall 2 of the receptacle is formed with a series of transversely disposed grooves 10, corresponding in size with the grooves 8 in the cleats.

The purifying means within the receptacle comprises a series of conductors 11 ar-

ranged in coil form, the coils being of oval shape with their major axis many times that of their minor axis. The coils are of a length exceeding the distance between the respective outer edges of the remote cleats, and are secured in place by seating their upper and lower edges in the respective grooves 8 and 10 in the cleats and bottom.

As will be more clearly seen in Fig. 2 the alternate coils are connected in parallel to the terminals 12 and 13 of an electric circuit, so that within the receptacle the circuit is broken between adjacent coils. One end wall 3 of the receptacle is provided with an inlet 14 and the bottom 2 remote from the inlet and beyond the proximate end of the coil is provided with an outlet 15.

The material to be purified finding its way into the receptacle through the inlet 14 will be subjected to an electrolytic action and thereby matters held in suspension and to some extent in solution will be removed from the fluid. It is important in devices of this character that means be provided for permitting free and convenient access to the interior thereof for cleaning or removing sediment, and one of the important features of the invention is the construction by which this result is gained. It will be noted that the sections 6 are freely removable, and when so removed will carry with them the cleats 7 and thereby free the upper edge of the coils. The coils are then supported solely by the grooves 10 of the bottom 2 and may be easily removed and replaced when necessary.

The apparatus is designed for use for the purification of fluid in any and all instances in which electrolytic action is serviceable to such end, and in this connection I contemplate the use of any material for the receptacle and of any suitable material for the coils.

I claim:—

1. A liquid purifier including a receptacle having its top made up of a series of removable sections, a series of coils of conducting wire arranged in spaced relation within the receptacle and forming electrodes, said coils being removably secured to the sections, and electric circuit terminals connected to said coils.

2. A liquid purifier including a receptacle having a series of transverse grooves formed in its bottom, the top of the receptacle in-

cluding a series of removable sections, cleats
secured on the sections and formed with a
series of longitudinally arranged grooves,
and a plurality of coils forming electrodes
5 seated in the grooves in the bottom and in
the grooves in the cleats.

3. A liquid purifier including a receptacle
having a series of transverse grooves formed
in its bottom, the top of the receptacle in-
10 cluding a series of removable sections, cleats
secured on the sections and formed with a
series of longitudinally arranged grooves, a

plurality of coils forming electrodes seated
in the grooves in the bottom and in the
grooves in the cleats, conductors leading 15
to the receptacle, and multiple connections
between each conductor and the alternate
coils within the receptacle.

In testimony whereof I affix my signature
in presence of two witnesses.

CHARLES W. CLARK.

Witnesses:

ALFRED SEAMAN,
P. F. LIMACHER.