

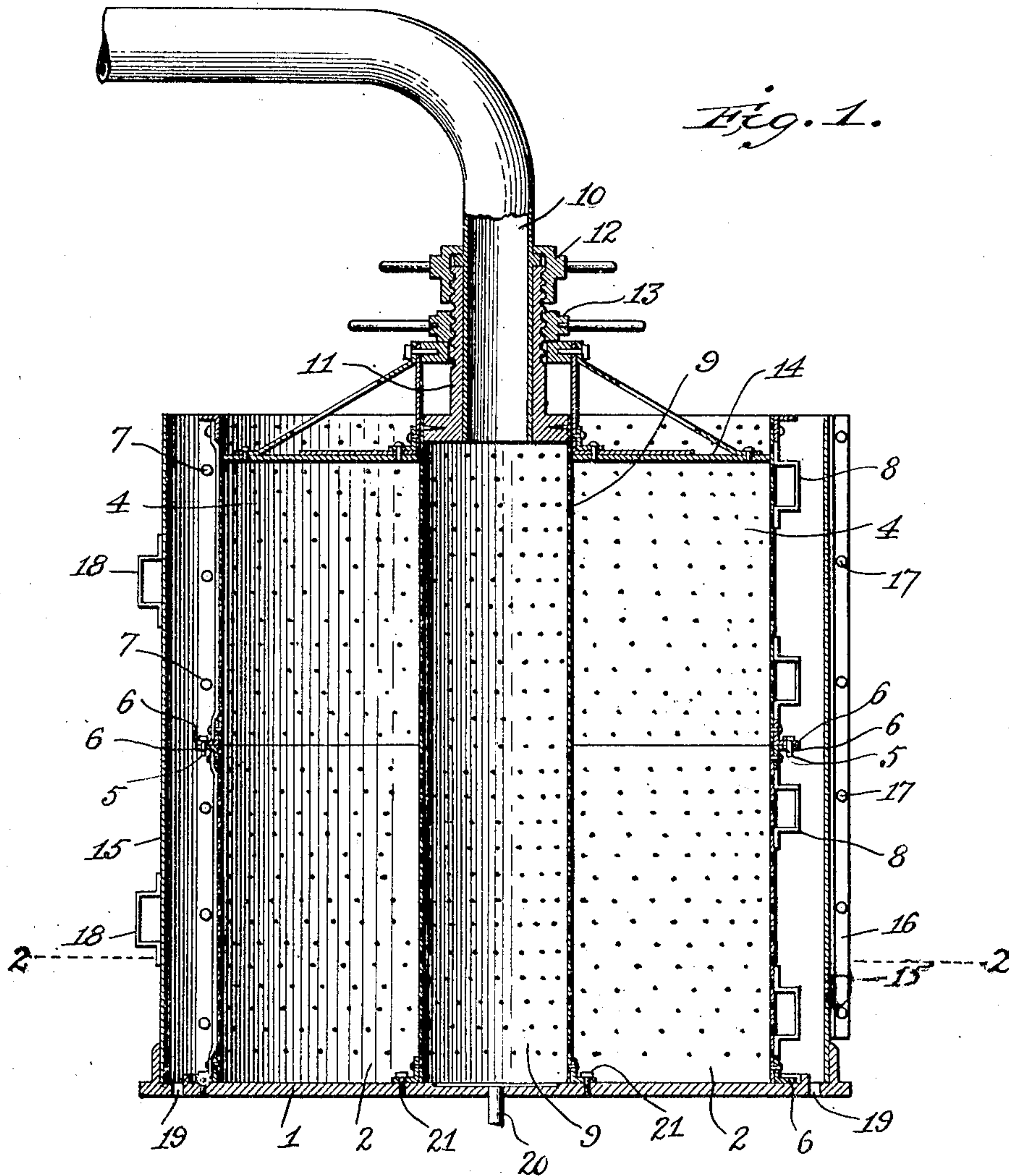
No. 892,898.

PATENTED JULY 7, 1908.

J. SCHMITT & E. HANDSCHIN.
DYEING AND BLEACHING APPARATUS.

APPLICATION FILED DEC. 12, 1906.

2 SHEETS—SHEET 1.



Witnesses

Edwin L. Jewell
John H. Tucker

Inventors

Jean Schmitt
Ernst Handschin

By

Geo. W. Winkler

Attorney

No. 892,898.

PATENTED JULY 7, 1908.

J. SCHMITT & E. HANDSCHIN.
DYEING AND BLEACHING APPARATUS.

APPLICATION FILED DEC. 12, 1906.

2 SHEETS—SHEET 2.

Fig. 2.

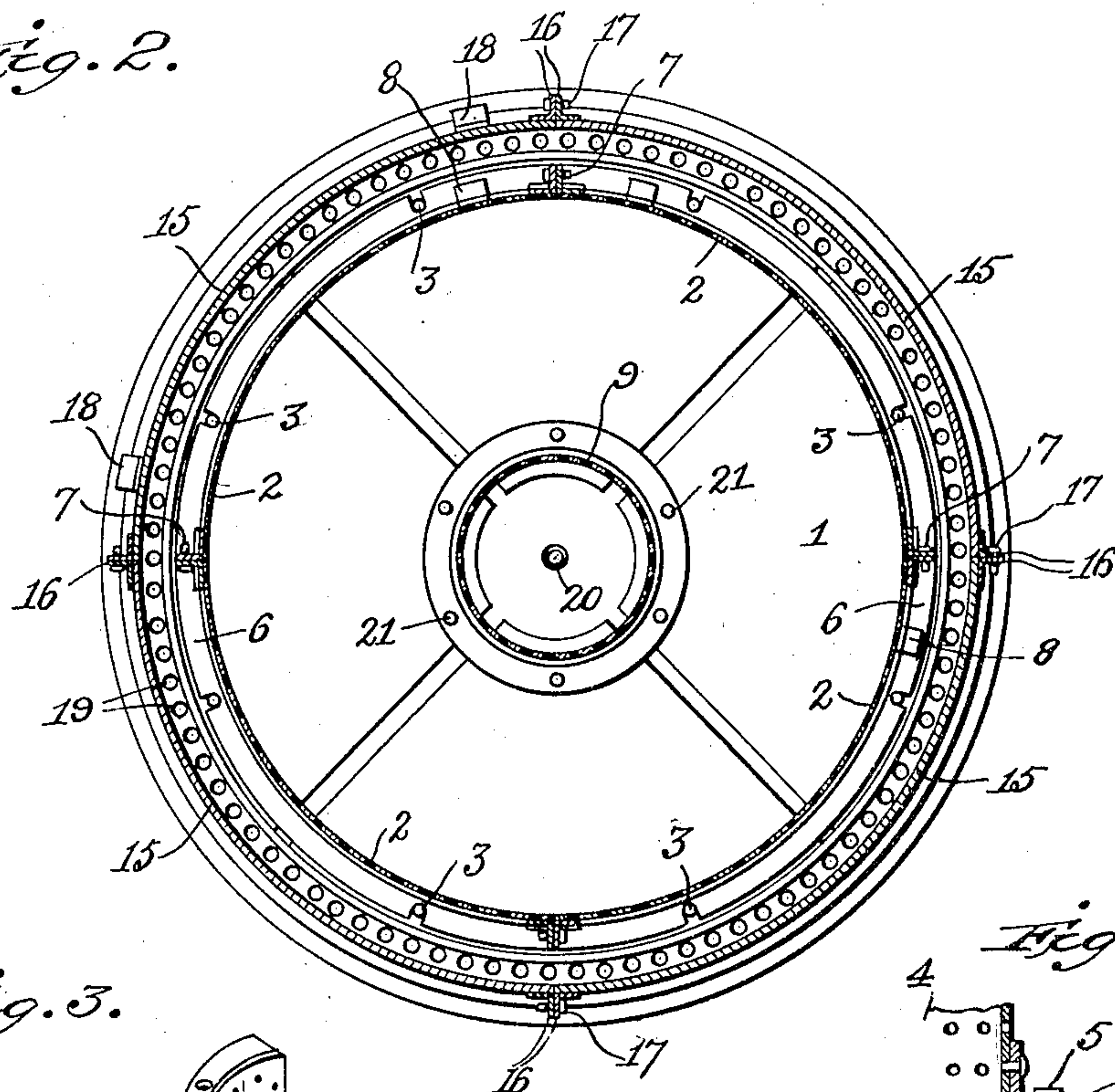


Fig. 3.

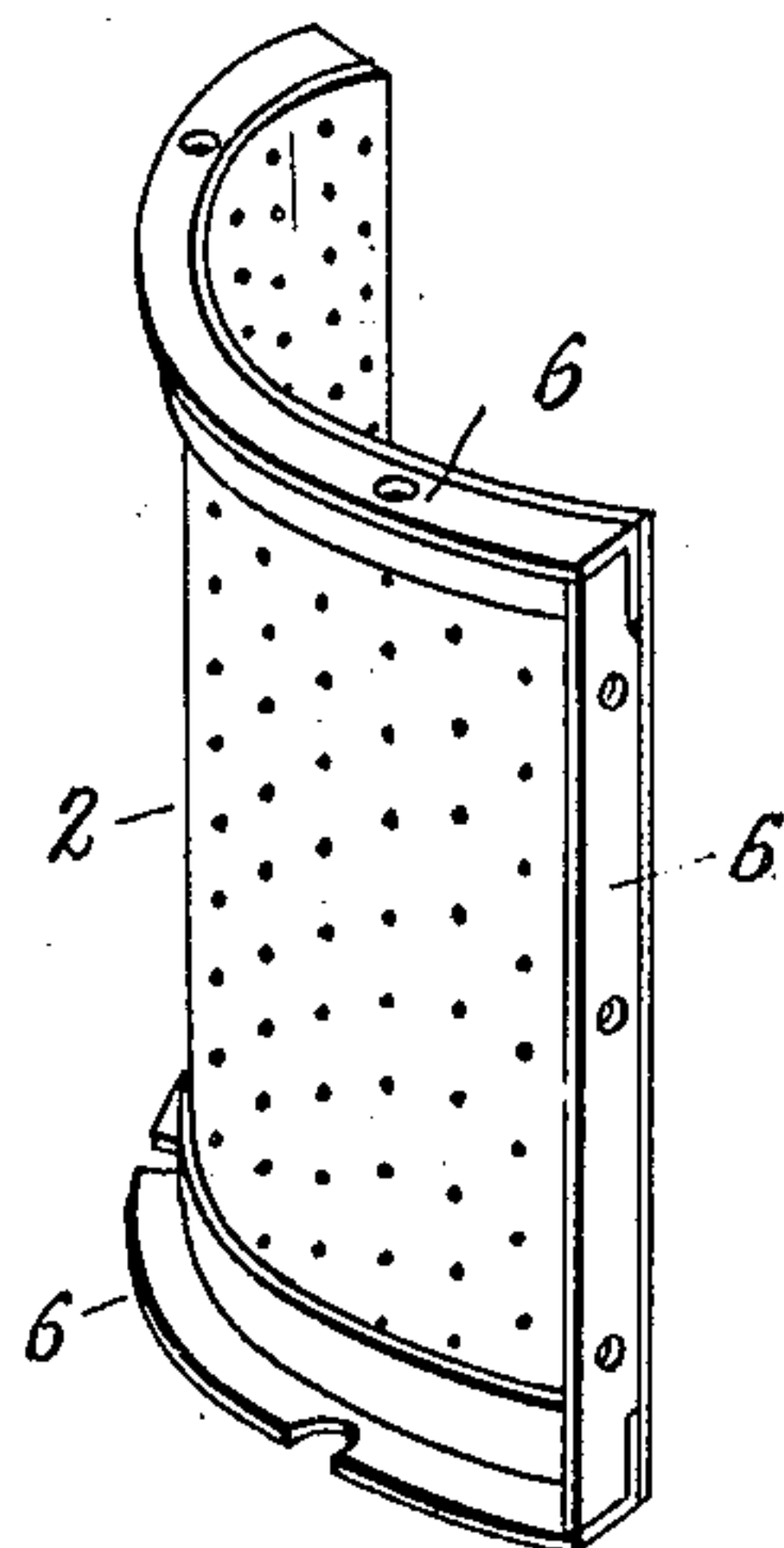
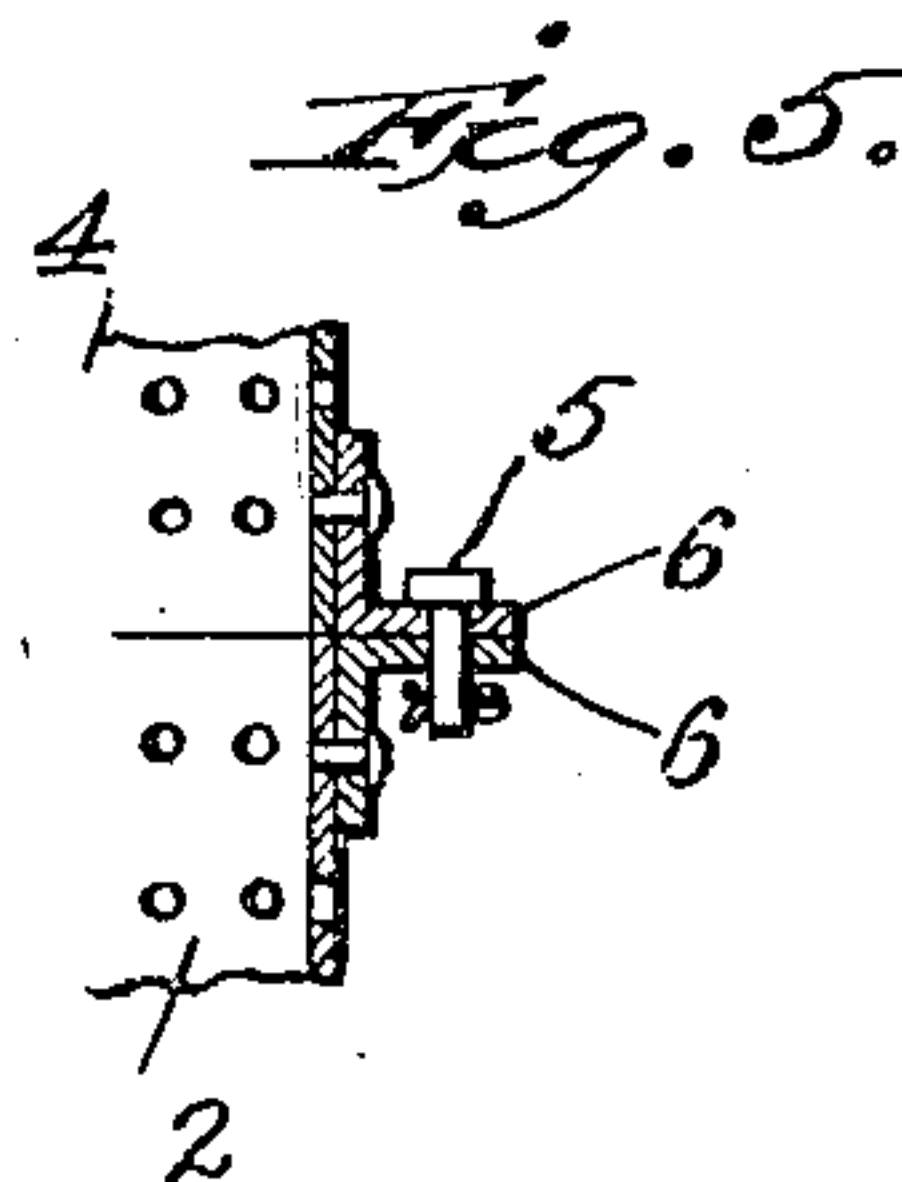
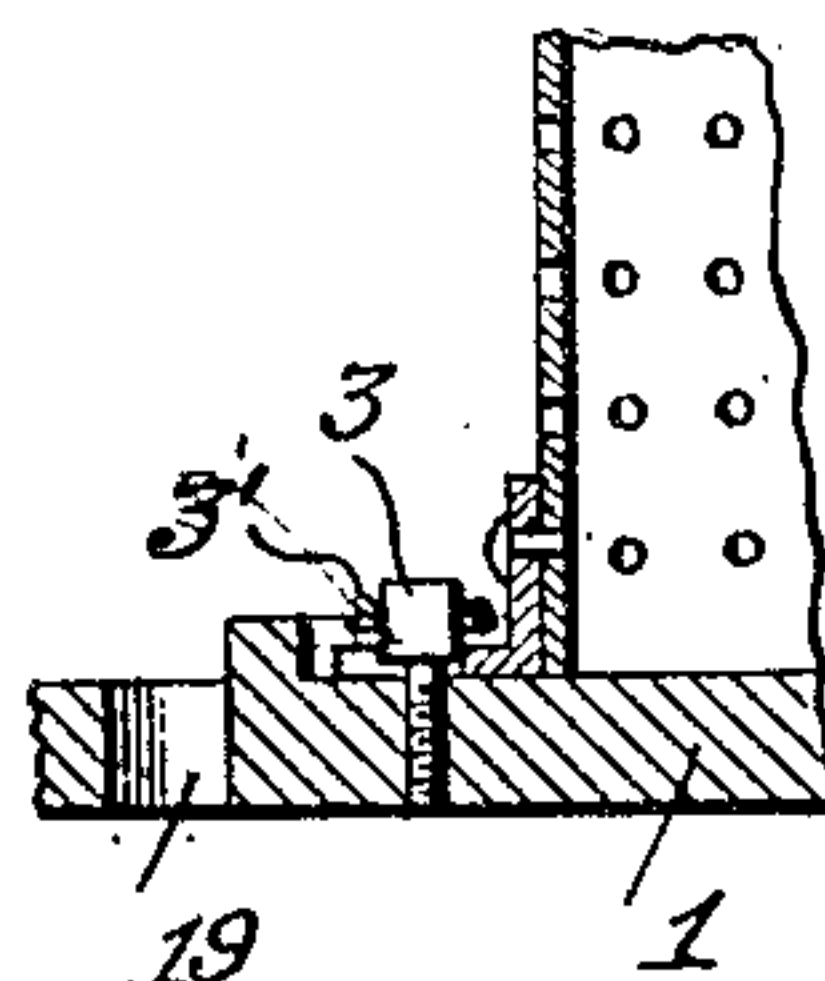


Fig. 4.



Witnesses

Edwin L. Jewell
John H. Tucker

Inventors

Jean Schmitt &
Ernst Handschin

By

Geo. H. Minter
Attorney

UNITED STATES PATENT OFFICE.

JEAN SCHMITT, OF BELFORT, FRANCE, AND ERNST HANDSCHIN, OF MASMÜNSTER, GERMANY.

DYEING AND BLEACHING APPARATUS.

No. 892,898.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed December 12, 1906. Serial No. 347,448.

To all whom it may concern:

Be it known that we, JEAN SCHMITT and ERNST HANDSCHIN, the former a citizen of the French Republic, residing at Belfort, in the Territoire de Belfort, France, and the latter a citizen of Germany, residing at Masmünster, Alsace, Germany, have invented certain new and useful Improvements in and Relating to Dyeing and Bleaching Apparatus, of which the following is a specification.

In the dyeing and bleaching of cotton goods or other textiles, apparatus hitherto used has necessitated after the dyeing or bleaching, the use of a crane or pulley of some kind to lift and transport the goods.

The present invention has for its object to remove this disadvantage by means of an apparatus which is different from others in that the vessel which contains the goods to be dyed or bleached is constructed in several parts capable of being rapidly and completely taken apart, by this means enabling large quantities of goods to be dyed or bleached at a time.

This apparatus by its special arrangement is easily filled and after the operation of dyeing or bleaching the different segments of which it is composed may be removed, giving free access to the dyed or bleached goods, which are then in the form of an annular block.

In order that this invention may be the better understood we now proceed to describe the same with reference to the accompanying drawing.—

Figure 1 is a longitudinal section of an apparatus embodying our invention. Fig. 2 is a cross section of the same on the line 2—2, Fig. 1. Fig. 3 is a perspective view of a segment of the separable cylinder, and Figs. 4 and 5 are detail sections of fastening devices.

This apparatus is composed of a cast iron plate 1 forming a base, on which are arranged four segments 2 forming the lower part of a separable cylinder, the surfaces of which are perforated to insure the circulation of the liquid. These four segments 2 are removably secured on the base 1 by means of suitable fastenings such as screws 3 and cotter pins 3' passing through the heads of the same. The cylinder thus formed represents half of the apparatus, on which four other similar segments 4 are fitted, corresponding exactly to the segments 2 before mentioned. The apparatus thus constructed forms a cylinder separable into eight pieces, and designed

to receive the material to be dyed or bleached, but it is evident that the number of these parts is only given as an example and may be reduced or increased according to the size of the apparatus. The upper segments 4 are removably secured to the lower segments 2 by means of suitable fastenings, such as key-bolts 5.

In order to strengthen the apparatus angle iron pieces 6 are arranged round the detachable cylinder and are connected and removably secured by means of suitable fastenings, such as key-bolts 7.

The handling of the segments is facilitated by means of a number of handles 8 attached thereto in the most convenient places.

In the center, and within the cylinder formed by the segments 2 and 4 is another perforated cylinder 9, through which is supplied the dyeing or bleaching liquor. This cylinder is secured to the base plate by bolts 21. The liquor brought into the cylinder 9 by means of a pipe 10 (which is inserted into the cylindrical neck 11 secured to the upper end of said cylinder and is attached thereto by the union 12) passes through the perforations, circulates in the textile material to be dyed or bleached and escapes through the perforations of the separable cylinder.

A nut 13 meshing with screw-threads on the outside of the neck 11 serves to tighten the annular cover 14, and consequently press the material contained underneath.

An external casing 15 of sheet iron or other metal, and also capable of being taken apart, made of 4 pieces connected together and strengthened by angle iron pieces 16 and secured by suitable fastenings, such as key-bolts 17, and also provided with handles 18, serves to collect the liquor escaping through the perforations of the separable cylinder, and obliges this liquor to run off through holes 19 arranged at its base.

An emptying tube 20 is arranged inside the cylinder 9, for the purpose of draining off the contents in case of necessity.

On the base plate 1, after mounting the central perforated tube 9, one arranges the four segments 2 and fastens them to the plate 1 by means of cotter pins 3' passed through the heads of the screws 3. One then has a cylinder encircling the tube 9. On this cylinder formed of the four segments 2 one places four other segments 4, and secures them by means of key-bolts 5. The height of this cylinder may be again in-

creased by the placing of other segments thereon. The textile material to be dyed or bleached is then pressed into the circular chamber contained between the walls of the segments 2 and 4 and the tube 9. The liquid for dyeing or bleaching penetrates through the perforations of the tube 9, traverses the textile mass and escapes by the perforations cut in the walls of the segments 2 and 4.

Without speaking of the second separable jacket, or of the mode of supplying and carrying off the liquid, which are described above, it is easy to see that once the textile mass has been dyed or bleached, one releases the segments 4 by pushing out their key-bolts 5, and then one releases the segments 2 by pushing out their cotters, whereupon there remains a mass or cake encircling the tube 9 like a muff.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed we declare that what we claim is:

1. An apparatus for dyeing and bleaching comprising a base plate a central perforated supply tube mounted thereon, and a containing cylinder concentric therewith and composed of a plurality of separable segments having perforated walls separably secured together and to said base plate.

2. An apparatus for dyeing and bleaching,

comprising a base plate, a central perforated supply tube mounted thereon and a containing cylinder concentric therewith and composed of separable segments having perforated walls, and detachable fastenings for securing said segments together and to said base plate.

3. An apparatus for dyeing and bleaching comprising a central perforated supply tube, a containing cylinder concentric therewith and composed of a plurality of separable segments having perforated walls, angle irons attached to said segments, and removable fastening devices passing through said angle irons.

4. An apparatus for dyeing and bleaching, comprising a central perforated supply tube, a containing cylinder concentric therewith and composed of a plurality of separable segments having perforated walls, and an inclosing jacket composed of separable segments having imperforate walls and detachable fastening devices for securing said segments together.

In testimony whereof we affix our signatures in presence of two witnesses.

JEAN SCHMITT.
ERNST HANDSCHIN.

Witnesses:

GEO. GIFFORD,
ANDREW HEER.