

No. 892,660.

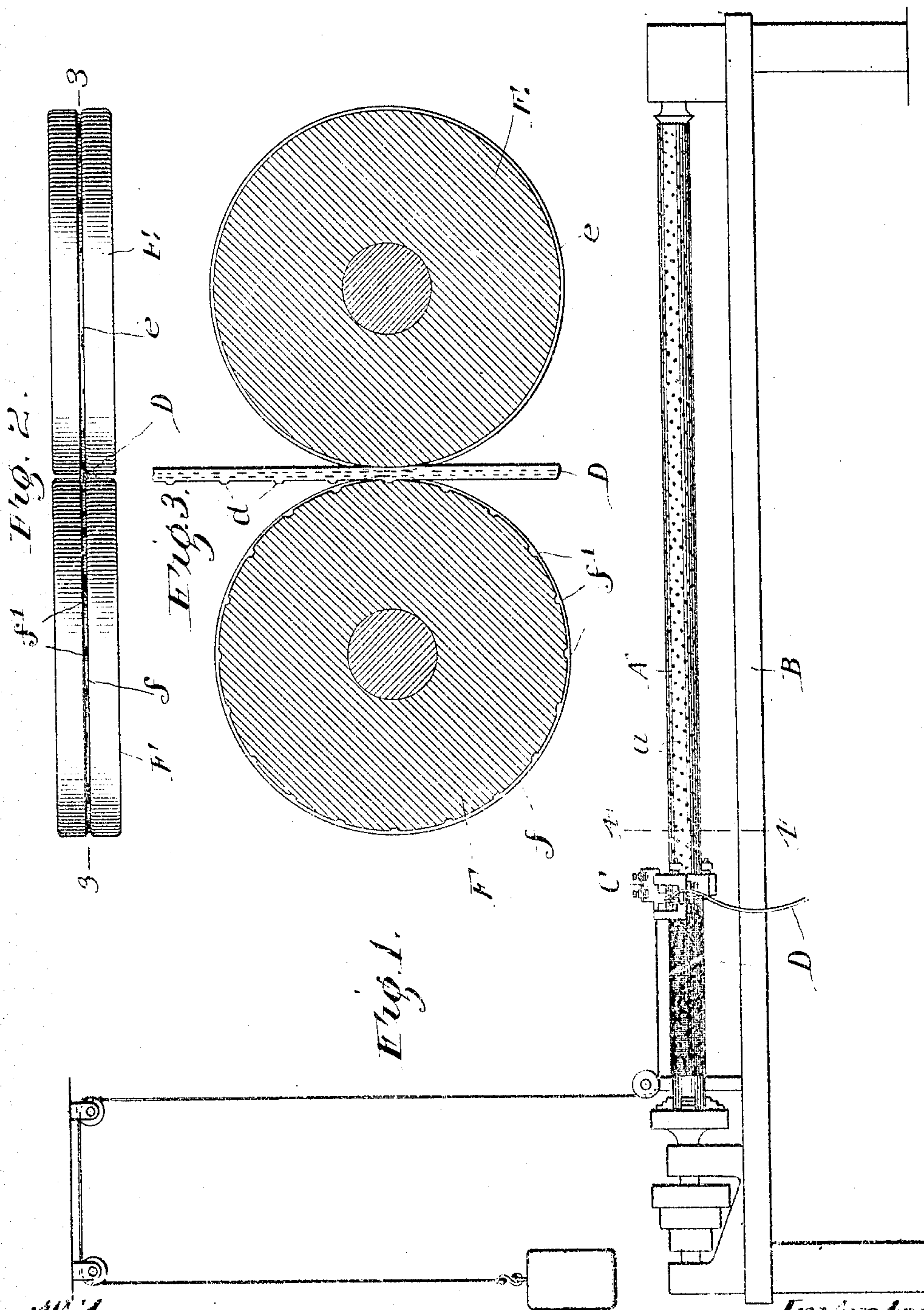
PATENTED JULY 7, 1908.

F. I. GETTY.

METHOD FOR MANUFACTURING STRAINERS FOR WELLS.

APPLICATION FILED MAR. 31, 1905.

2 SHEETS—SHEET 1.



Witnesses:
A. M. Cornwall
J. E. Sherry

Inventor:
Fred I. Getty
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Attys.

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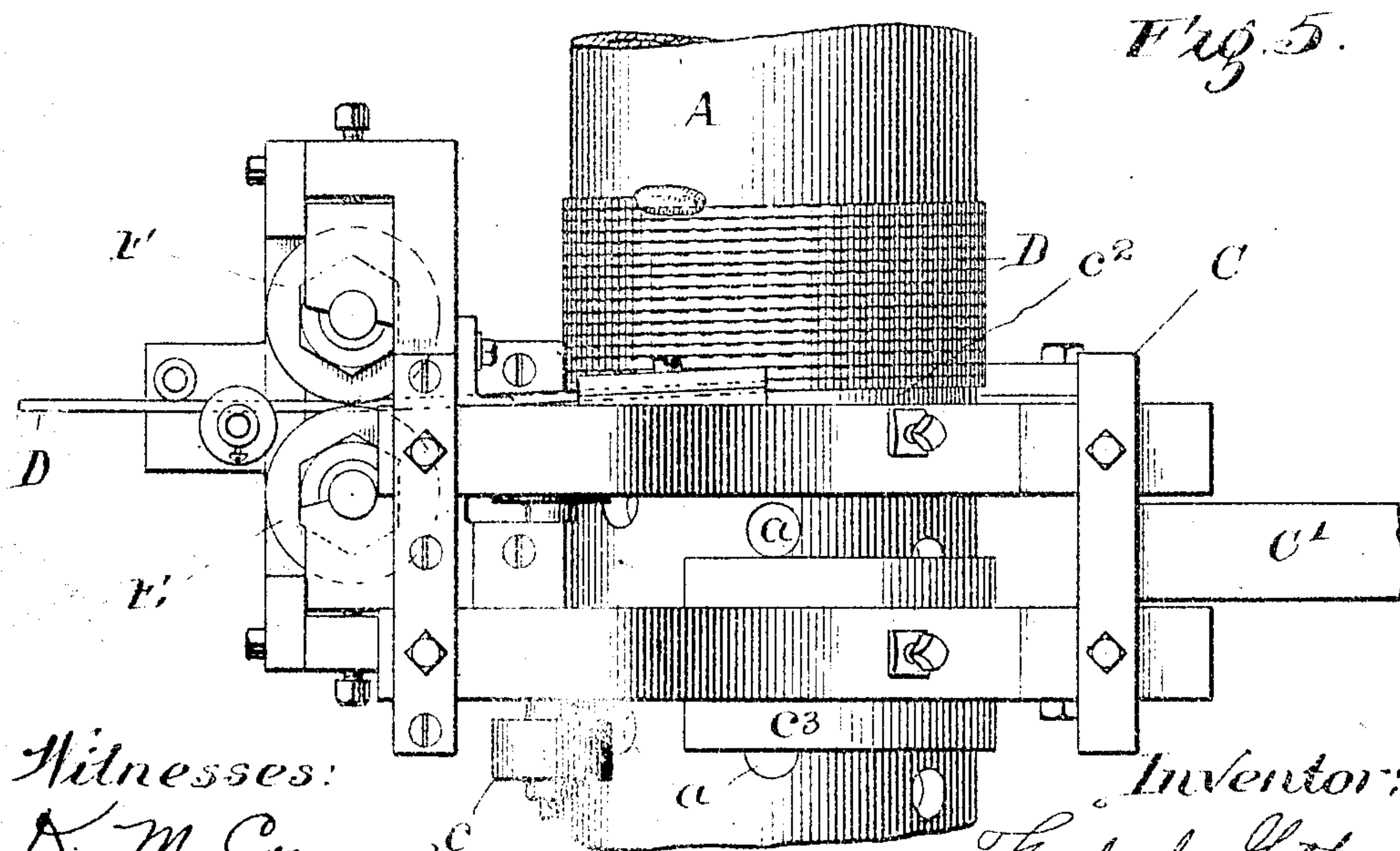
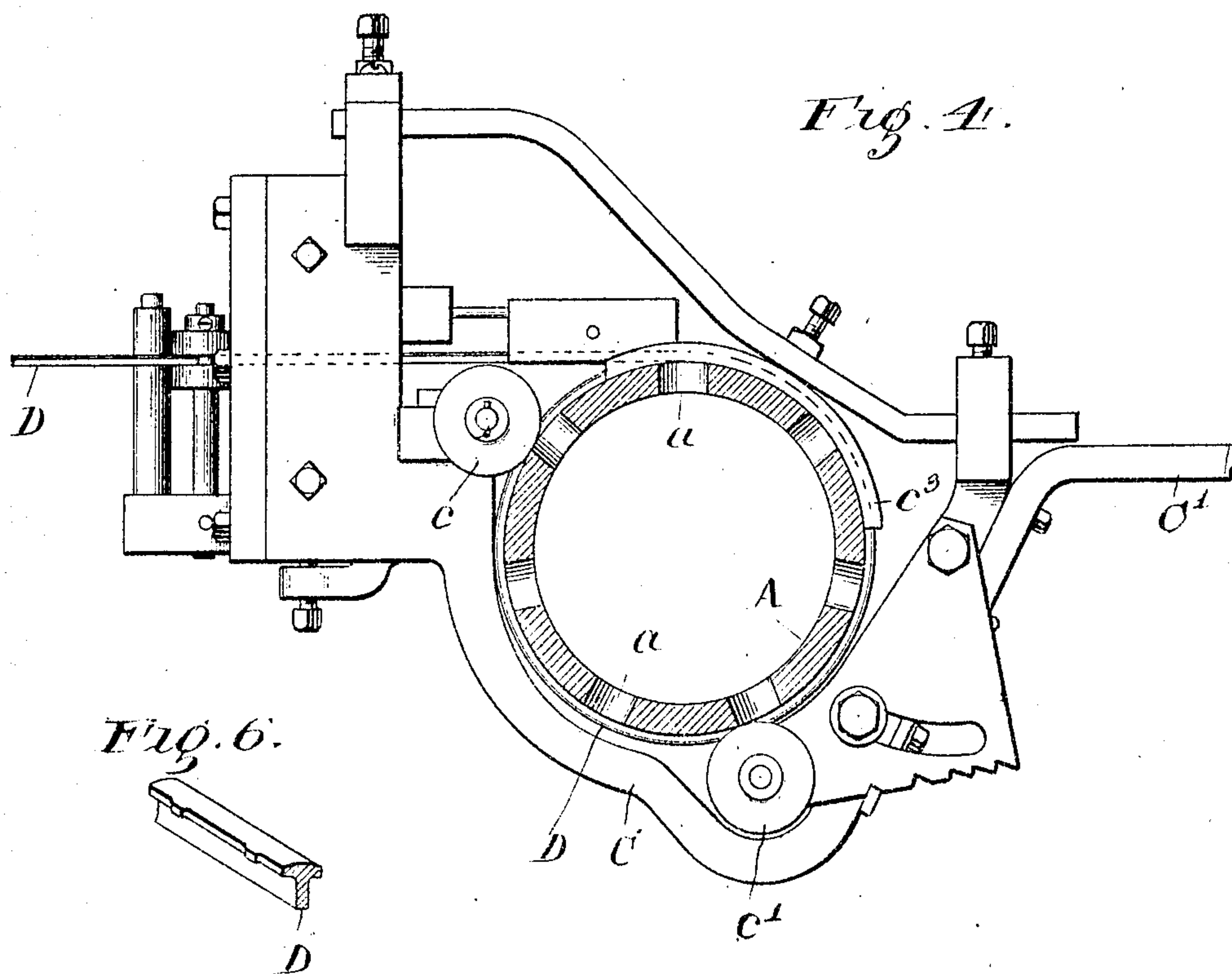
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2 SHEETS—SHEET 2.



Witnesses:

K. M. Cornwell
J. E. Sherrey.

Inventor:

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UNITED STATES PATENT OFFICE.

FRED I. GETTY, OF JENNINGS, LOUISIANA.

METHOD FOR MANUFACTURING STRAINERS FOR WELLS.

No. 892,660.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed March 31, 1905. Serial No. 253,190.

To all whom it may concern:

Be it known that I, FRED I. GETTY, a citizen of the United States of America, residing at Jennings, in the parish of Calcasieu and State of Louisiana, have invented certain new and useful Improvements in Methods for Manufacturing Strainers for Wells, of which the following is a specification.

My invention relates to a certain new and improved method for manufacturing strainers for wells, and its object is to provide a method for such manufacture which shall have certain advantages which will appear more fully and at large in the course of this specification.

The apparatus which I prefer to use in practicing my improved method is that illustrated, described in detail and claimed in my application on machines for manufacturing screening for well tubes, filed on even date herewith and allotted Serial Number 253,189, and this preferred form of apparatus is illustrated in the accompanying drawings, in which

Figure 1 is an elevation of the apparatus; Fig. 2 is an elevation of the wire-forming rolls; Fig. 3 is a section in the line 3—3 of Fig. 2; Fig. 4 is a section in the line 4—4 of Fig. 1; Fig. 5 is a top plan of the apparatus, and Fig. 6 is a perspective view of a short length of the wire after being passed through the wire-forming rolls.

It will be obvious that as far as the method of operation is concerned, any one of a large number of devices can be used and by illustrating in detail the preferred form of apparatus, I do not intend to limit myself to the use thereof.

In forming filters or strainers according to my improved method, a pipe, A, having perforations, *a*, is first provided. This pipe is centered in a lathe, B, or other device by which it can be rotated, and upon it is mounted a frame, C, carrying rolls, *c*, *c'*, and shoes, *c''*, *c'''*. These shoes and rolls are adjustable to fit pipe of any diameter and they bear upon the pipe to center the frame. An arm, C', extends backward from the frame and bears upon a stationary portion of the lathe to prevent the rotation of the frame with the pipe.

The wire which I prefer to use in constructing filters is T-shaped in cross section, and is fed in almost its completed form to the apparatus, the device operating only on the two edges of the head of the T. This wire, indi-

cated by, D, in the drawings, is in the first instance passed between two forming rolls, E, F, which have grooves, *e*, *f*, to receive the head of the T. The groove, *f*, has notches or depressions, *f'*, into which the material of the T-head is crowded, so as to form laterally-projecting lugs, *d*. The depth of the depression, *f'*, determines the size or height of the lugs, and as will subsequently appear, the mesh of the screen and the forming rolls are therefore made readily removable from place as shown and described in my application above referred to, so that the apparatus can be readily adapted to the manufacture of screening of various meshes.

After the wire leaves the forming rolls from which it emerges with one smooth edge and one lugged edge, it is wound upon the pipe, A, as illustrated, the lugs on one turn lying against the flat or smooth edge on the next turn, thereby spacing the turns apart and forming meshes between the turns of wire through which liquid can pass. It will be obvious that the size of the mesh is determined by the height of the lugs, *d*, formed on the wire.

The wire is drawn through the forming rolls solely by means of the pipe and the entire frame and forming mechanism is shifted along the pipe by engagement of the shoe, *c''*, with the last turn of the wire.

The method herein set forth is particularly advantageous for the reason that a wire is produced having lugs of absolutely uniform height, so that a perfect screen can be obtained. Furthermore, with the method herein pointed out, rolls having depressions of various size can be used, and interchanged with comparative ease, so that screens of various mesh can be produced with the same apparatus. Heretofore, the most extensively used screen has been a screen composed of ordinary wire gauze, and, as a result, the users of such screening have come to identify the fineness of screen which they desire, by the number of the mesh of wire gauze having correspondingly fine openings.

In order to sell filters of the type herein shown on a practical commercial scale, it is necessary, or at least extremely desirable, to be able to furnish them with meshes which correspond accurately to the standard wire gauze meshes, and by the use of various interchangeable rollers, this can be done with the greatest ease with my device.

I realize that considerable variation is

possible in the details of the procedure herein described, and I do not intend to limit myself thereto except as set forth in the claims.

I claim as new and desire to secure by Letters Patent:—

1. The method of making a wire wrapped strainer, which consists in forcing a wire through a lug-forming device, adapted to form lugs thereon by compression, then winding that portion of the wire upon which the lugs have been formed around a central core and keeping a tension upon the wire during the entire lug forming and winding operation.

2. The method of making a wire wrapped strainer, which consists in drawing a wire through a lug-forming device having a roll provided with a depression into which the metal is forced to form the lugs by compression, then winding that portion of the wire on which the lugs have been formed around a central core and keeping the wire during the entire operation under tension.

3. The method of making a wire wrapped strainer, which consists in drawing a wire through a lug forming device having a roll provided with a depression into which the metal is forced to form the lugs by compression, then winding that portion of the wire on which the lugs have been formed around a central core, the pull of the wire which is necessary to draw it through the lug-forming device being imparted to the wire by winding that portion of the wire upon which the lugs have been formed around the core.

4. The method of making a wire wrapped strainer, which consists in drawing a wire

through a lug-forming device embodying a pair of rolls, one of which is provided with depressions into which the metal of the wire is compressed to form lugs, then winding that portion of the wire on which the lugs have been formed around a central core, the pull of the wire which is necessary to draw it through the lug-forming rolls being imparted to the wire by winding that portion of the wire upon which the lugs have been formed around the core.

5. The method of making a wire wrapped strainer, which consists in drawing a wire through a lug-forming device and which reduces the width of the wire, then winding that portion of the wire which has been reduced in width and on which the lugs have been formed around a central core with the transverse elements of the reduced width portion extending parallel to the axis of the core, the pull of the wire which is necessary to draw it through the lug-forming device being imparted to the wire by winding that portion of the wire so reduced and upon which the lugs have been formed around the core and keeping a tension upon the wire during the entire lug-forming and winding operation.

In witness whereof I have signed the above application for Letters Patent at Jennings, in the parish of Calcasieu and State of Louisiana, this 21st day of March, A. D. 1905.

FRED I. GETTY.

Witnesses:

S. K. JOHNSON,
R. C. STEWART.