No. 792,755. PATENTED JUNE 20, 1905.

N. CAUTLEY.

CENTRIFUGAL HYDROEXTRACTOR.

APPLICATION FILED AUG. 8, 1904.

Fig. 1.

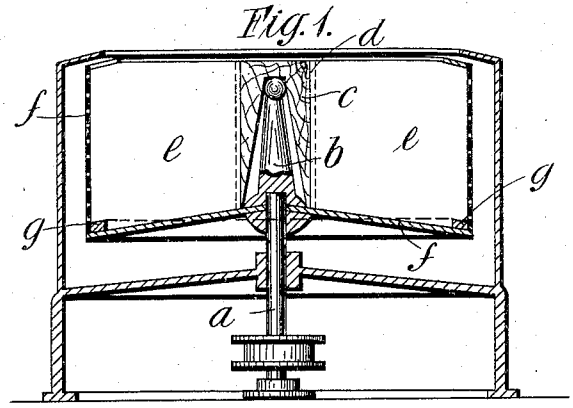


Fig. 2.

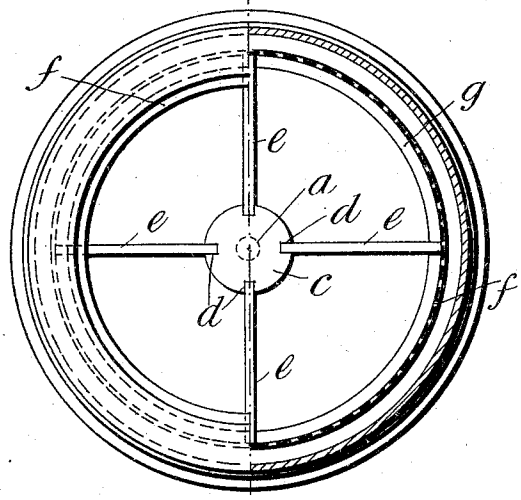
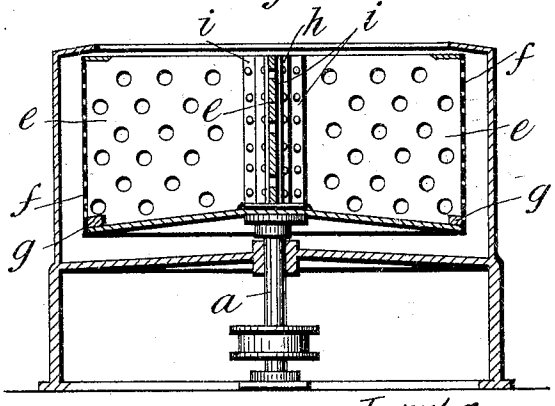


Fig. 3.



Witnesses.
Percy Woodward
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UNITED STATES PATENT OFFICE.

NATHANIEL CAUTLEY, OF SHELF, NEAR HALIFAX, ENGLAND.

CENTRIFUGAL HYDROEXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 792,755, dated June 20, 1905.

Application filed August 8, 1904. Serial No. 219,976.

To all whom it may concern:

Be it known that I, NATHANIEL CAUTLEY, a subject of the King of Great Britain, residing at Shelf, near Halifax, in the county of York, England, have invented certain new and useful Improvements in and in Connection with Centrifugal Hydroextractors, of which the following is a specification.

My invention relates to improvements in and in connection with centrifugal hydroextractors.

In the present forms of hydroextractors of the kind employed for the drying of clothes, linen, and the like it is necessary that the articles under treatment should be carefully folded and packed, so that the liability to injury by stretching and tearing in consequence of the centrifugal action shall be minimized as far as possible. In practice this often represents a serious inconvenience and expense.

Now my invention has for its object to overcome these disadvantages and to provide for use with a hydroextractor a simple arrangement whereby tearing of the articles is prevented and the hydroextractor can be safely and quickly filled with the articles to be dried.

According to my invention I divide the drum, basket, or cage, hereinafter referred to as the "drum," into sections or compartments by means of partitions, and in cases where the central spindle protrudes into the drum I fit over the said central spindle a hub which is provided with grooves or the like and into which are fitted the partitions, which extend radially. Distance-pieces may be fitted around the inner circumference of the drum between the partitions, so as to hold the latter in place, or other devices may be employed for the purpose. A lubricating-passage may be bored in the spindle for applying lubricant thereto. Four or any suitable number of partitions may be employed, according to the size of the hydroextractor and other circumstances. The partitions and other parts may be of wood, metal, or any other material as may be found best in practice and may be fixed permanently in place, but are preferably arranged so as to be removable, as above mentioned. By thus dividing the space for the clothes into sections the movement possible for the said clothes is greatly restricted and the above-mentioned disadvantages (tearing and stretching) are greatly reduced. No great care is required when filling the hydroextractor, and time is thus saved. Moreover, in consequence of the division of the hydroextractor into compartments various classes of articles—such as starched, unstarched, colored, and white goods—can be dried in the same load.

By means of this invention machines of larger size than usual can be employed and higher speed can be used, thus further increasing the utility and convenience of the machine.

The invention may also be used for drying hanks of yarn and other textile materials.

In order that my said invention may be readily understood, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a vertical section; Fig. 2, a plan view, partly in section, illustrating my invention; and Fig. 3 is a vertical section illustrating a modified form thereof.

In carrying out my invention in accordance with Figs. 1 and 2 I fit over the central spindle *a* and its cap *b* a hub *c*, provided with four or more grooves, recesses, or the like *d* for the reception of the partition-plates *e*, which extend radially across a perforated drum *f* and are confined or kept in position at their outer ends by means of distance-pieces *g*, formed in one or attached to the lower and inner circumference of the drum. The plates *e* may be made of wood, metal, or other suitable material, either plain, as shown in Fig. 1, or perforated, as in Fig. 3, in any appropriate manner.

In the construction shown in Fig. 3, wherein the central spindle *a* does not extend into the drum *f*, there is arranged a hub *h*, of wood, metal, or other suitable material, which may or may not be secured to the drum and is provided with wings *i*, to which the partitions *e* are attached by means of bolts and nuts, screws, or the like. In this form of construction I preferably form the partitions *e* of metal and provide the same with any suitable arrangement of perforations.

In use the clothes or the like to be dried are

packed into the compartments formed by the partitions and the hydroextractor set in motion till such time as is necessary to dry the articles.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In a centrifugal hydroextractor, a perforated drum divided into compartments by means of radially-arranged partition-plates that extend outward to said drum, a central hub adapted to receive the inner ends of said plates, and distance-pieces for holding the outer ends of said plates in position substantially as described.

2. In a centrifugal hydroextractor, a drum divided into compartments by means of perforated partitions, a central hub adapted to receive the inner ends of said partitions, and distance-pieces for holding the outer ends of said partitions in position substantially as described.

In testimony whereof I have hereunto set my hand, in presence of two subscribing witnesses, this 29th day of July, 1904.

NATHANIEL CAUTLEY.

Witnesses:

H. D. JAMESON,

F. L. RAND.