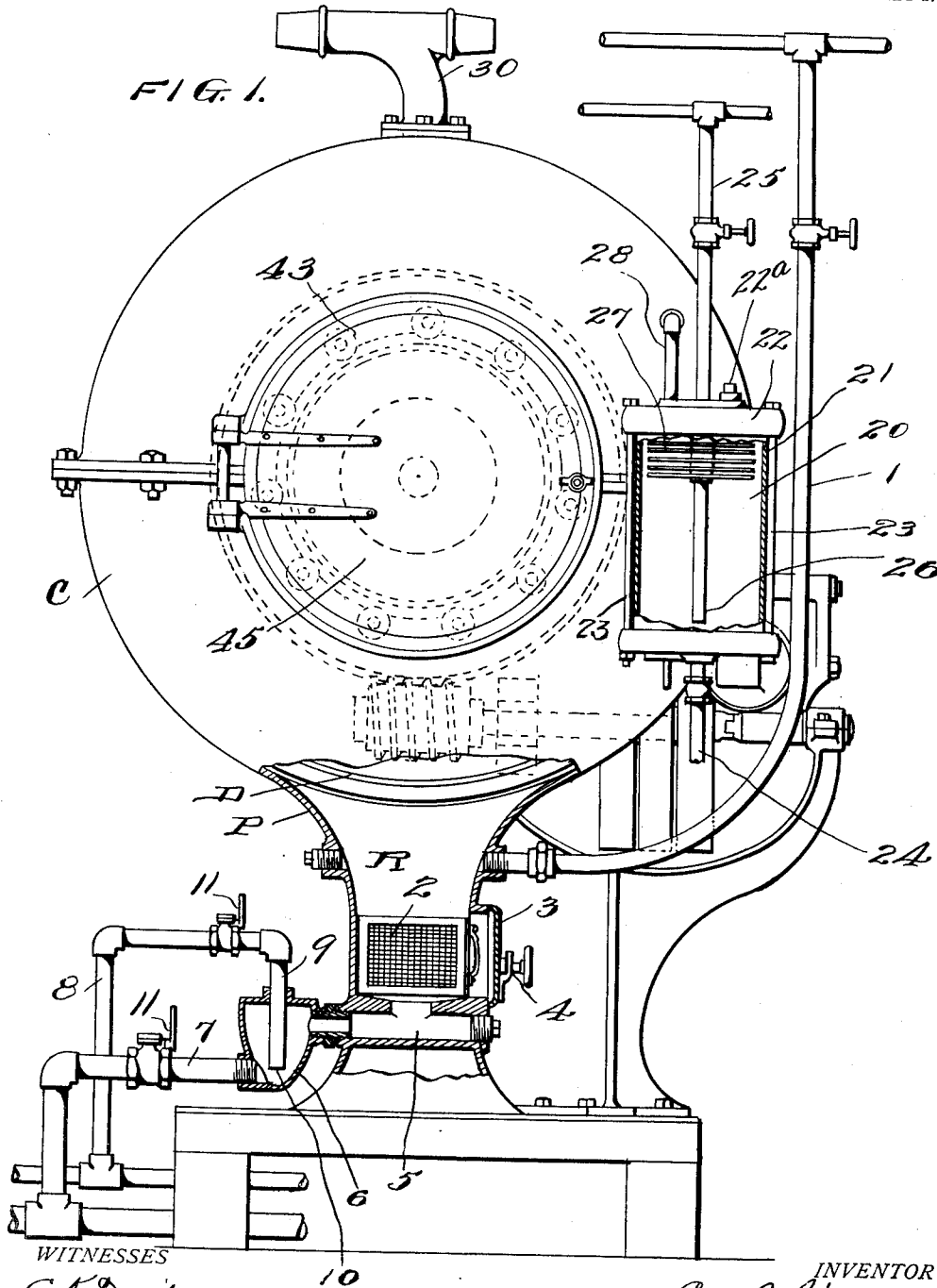


E. Y. WHITE.
 DRY CLEANING MACHINE.
 APPLICATION FILED OCT. 3, 1911.

1,100,334.

Patented June 16, 1914.

3 SHEETS—SHEET 1.



WITNESSES

C. K. Davis.

L. B. Aveille

INVENTOR

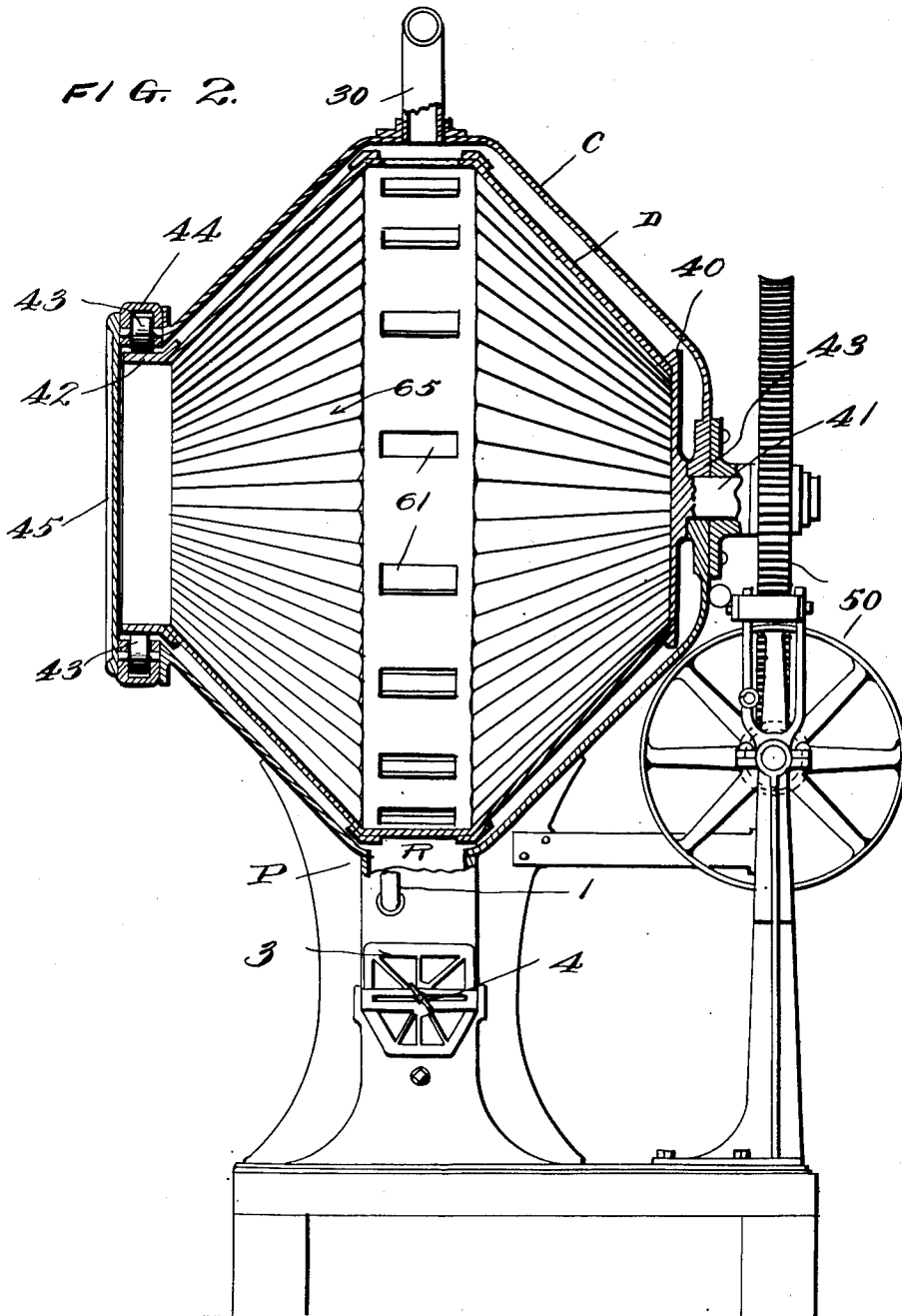
E. Y. White
 by *Charles C. Smith*
 Attorney

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3 SHEETS-SHEET 2.



WITNESSES

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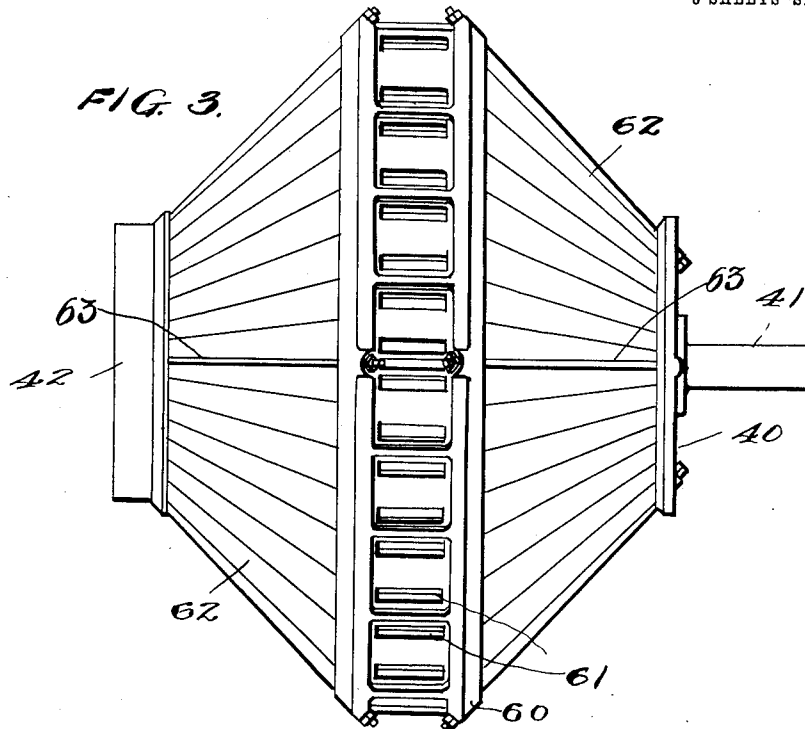
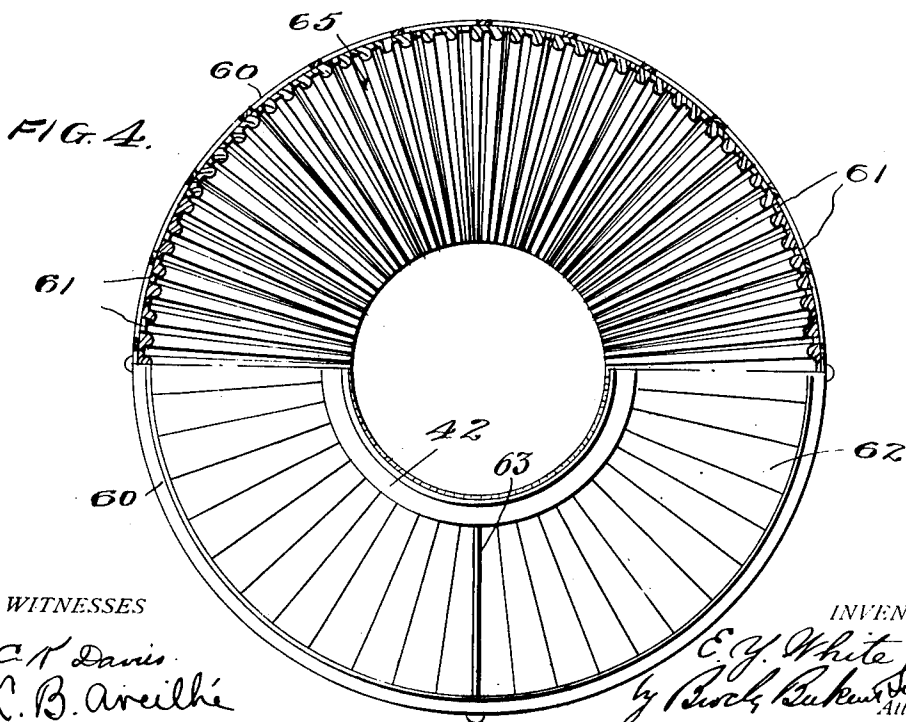
E. Y. White
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3 SHEETS-SHEET 3.



UNITED STATES PATENT OFFICE.

EDWARD YOUNG WHITE, OF SAN ANTONIO, TEXAS.

DRY-CLEANING MACHINE.

1,100,334.

Specification of Letters Patent.

Patented June 16, 1914.

Application filed October 3, 1911. Serial No. 652,589.

To all whom it may concern:

Be it known that I, EDWARD Y. WHITE, a citizen of the United States, and a resident of San Antonio, Texas, have invented a new and useful Dry-Cleaning Machine, of which the following is a specification.

My invention relates to a dry cleaning machine; that is, a machine for cleaning by the use of gasoline or a medium of like nature.

Among the more important objects of the invention are to reduce the amount of gasoline necessarily used at any one time; to provide means for keeping the gasoline clean while in use and for straining and drawing off the gasoline from time to time; to provide easy means for placing garments, etc., in the drum and to remove them and to enable this to be done while the drum is revolving; to improve the construction of the drum and its rubbing action upon the garments, and to provide means for supplying moisture to the machine to prevent ignition of the cleansing fluid by static discharges caused by the operation of the machine.

In the accompanying drawing I show one exemplifying structure in which the invention is embodied but it is to be understood that the invention may be embodied in different ways.

Figure 1 is a front view mainly in elevation but partly in section. Fig. 2 is a vertical section in the plane of the shaft axis. Fig. 3 is a side elevation of the drum. Fig. 4 is a transverse section at one side of the center ring.

Reference character D designates the drum as a whole and C the casing, which is conveniently circular in front elevation and of modified V-shape in longitudinal section as shown in Fig. 2 to closely conform to the similar outline of the drum. By reason of this construction of the drum and casing, a relatively small quantity of gasoline carried in the lower portion of the casing, circulates through the drum and is sufficient for cleaning purposes. With drums and casings as ordinarily constructed, it is necessary to carry five or six times as much gasoline in the casing in order to raise the fluid to approximately the same level.

The casing is conveniently supported by pedestal P forming a reservoir R communicating with the casing. Gasoline pipe 1 communicates with this reservoir for the easy supply of the cleaning fluid. At the

bottom of the reservoir is a trough shaped screen 2, which may be removed through a trap 3 provided with a quick-acting fastening device 4. Impurities removed from garments, etc., in cleaning, settle in the reservoir R and the coarser part of these are caught by the screen 2. Below the screen is a sump or drain passage 5 communicating with an outside trap 6. From the bottom of this trap the used gasoline may be drawn off by gravity by pipe 7. The gasoline may also be pumped off through pipe 8 of which a vertical leg 9 passes through the top of the trap and terminates at 10 somewhat above the bottom thereof. Pipes 7 and 8 are provided with valves 11.

It has been found that in the operation of dry cleaning machines, particularly in dry weather, the gasoline is sometimes ignited by electric sparks caused by static charges, generated by the machine. This danger is guarded against in some cases by saturating the entire atmosphere of the room with moisture but this expedient is inconvenient and undesirable for various reasons. I provide means for supplying moisture to the machine itself to prevent accumulation of static charges. In the particular embodiment of the invention shown, this means consists of a device for moistening air supplied to the casing. The water chamber 20 is secured adjacent to the casing. This may consist of a shell 21, which may be of glass or other suitable material, and heads 22 secured against the heads of the shell by bolts 23, or the chamber may be of any other convenient construction. The chamber 20 is filled through block 22^a with water to a suitable level, and the chamber may be cleaned out by opening a valve in the pipe 24 leading from the bottom of the chamber to the sewer. Air is supplied through pipe 25 which conveniently passes through the top of the chamber and terminates within the chamber at 26 near the bottom thereof. The water level may be at any suitable point above the end of pipe 25. Surrounding the pipe near the upper end of the chamber I may provide a suitable plurality of baffle plates 27. Pipe 28 connects the upper part of the water chamber with the interior of the casing C. At the top of the casing is a ventilating outlet 30 through which suitable pipes or flues may lead to the outer air. When the machine is in operation water is maintained at a suitable level in chamber

20. Air is supplied in suitable quantities through pipe 26 and passes up through the body of water, becoming impregnated with moisture and this moisture is thoroughly incorporated with the air by baffle plates 27. The moistened air then passes through pipe 28 to the casing and drum and insures a thoroughly moist atmosphere in the machine and in contact with all its working surfaces so that the accumulation of static charges is effectively prevented.

The drum D comprises a rear header 40 provided with shaft 41 and a front ring-shaped header 42 of quite large diameter. Shaft 41 revolves in a bearing 43 at the rear of the casing and front header 42 revolves in a roller bearing 43, provided in the front end 44 of the casing. This end of the casing is closed by a door 45. The ring-shaped header 42 provides an axial opening for the insertion and removal of garments and fabrics, and this loading and unloading of the drum may be accomplished easily while the latter is in operation. A great saving of time and corresponding economy is thus effected since, ordinarily, these machines must be stopped at frequent intervals for loading and unloading through doors which must be specially positioned to make them accessible and also to avoid loss of the cleansing fluid. The drum is revolved by any suitable mechanism 50, the details of which do not form a part of this invention.

As shown in Figs. 3 and 4, the drum comprises the headers just described and a center ring 60 provided with apertures 61 for the circulation of the fluid. Between the center ring and each of the headers are wooden staves 62. The whole structure is secured together by rods 63 and suitable fastening nuts intermediate the center ring and each of the headers. These staves form solid sides of the drum between the headers and the ring. The interior faces of the staves are provided with corrugations 65, and in operation these rub against the clothes, the engagement being increased by the wedging effect of the mass of garments at the bottom of the drum.

I claim:—

1. In cleaning apparatus, the combination of a casing, a settling reservoir at the bottom thereof, a trap connected with the reservoir, a drain pipe leading from the bottom of the trap, a pump pipe leading from the trap, a strainer between the reservoir and the trap, and a door for the removal of the strainer.

2. In cleaning apparatus, the combination of a casing, a drum therein, a journal carried by the drum and revolving in a bearing at one end of the casing, an enlarged journal at the other end of the drum revolving in a bearing in the casing, said enlarged journal having an opening there-through for filling and emptying the drum.

3. In cleaning apparatus, the combination of a casing, a drum therein, bearings at opposite ends of the casing for the drum, a journal at one end of the drum revolving in one of the bearings, a ring-shaped journal at the other end of the drum revolving in the other bearing, said ring-shaped journal providing an opening therethrough affording facility for filling and emptying the drum.

4. In cleaning apparatus comprising a casing, a rotary cleaning member, means for saturating the air inside the case with moisture to prevent the occurrence of electric sparks caused by the movement of the apparatus.

5. In cleaning apparatus, the combination of a casing having a bearing at one end and a relatively larger bearing at the other end, a drum in the casing, a shaft on the drum revolving in the bearing first mentioned, and a ring-shaped enlarged journal at the other end of the drum revolving in said enlarged bearing, said enlarged journal having an opening therethrough affording ample facilities for filling and emptying the drum.

EDWARD YOUNG WHITE.

Witnesses:

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