W. H. TIDLAND.

CLOTHES DRIER.

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Fig. 1.

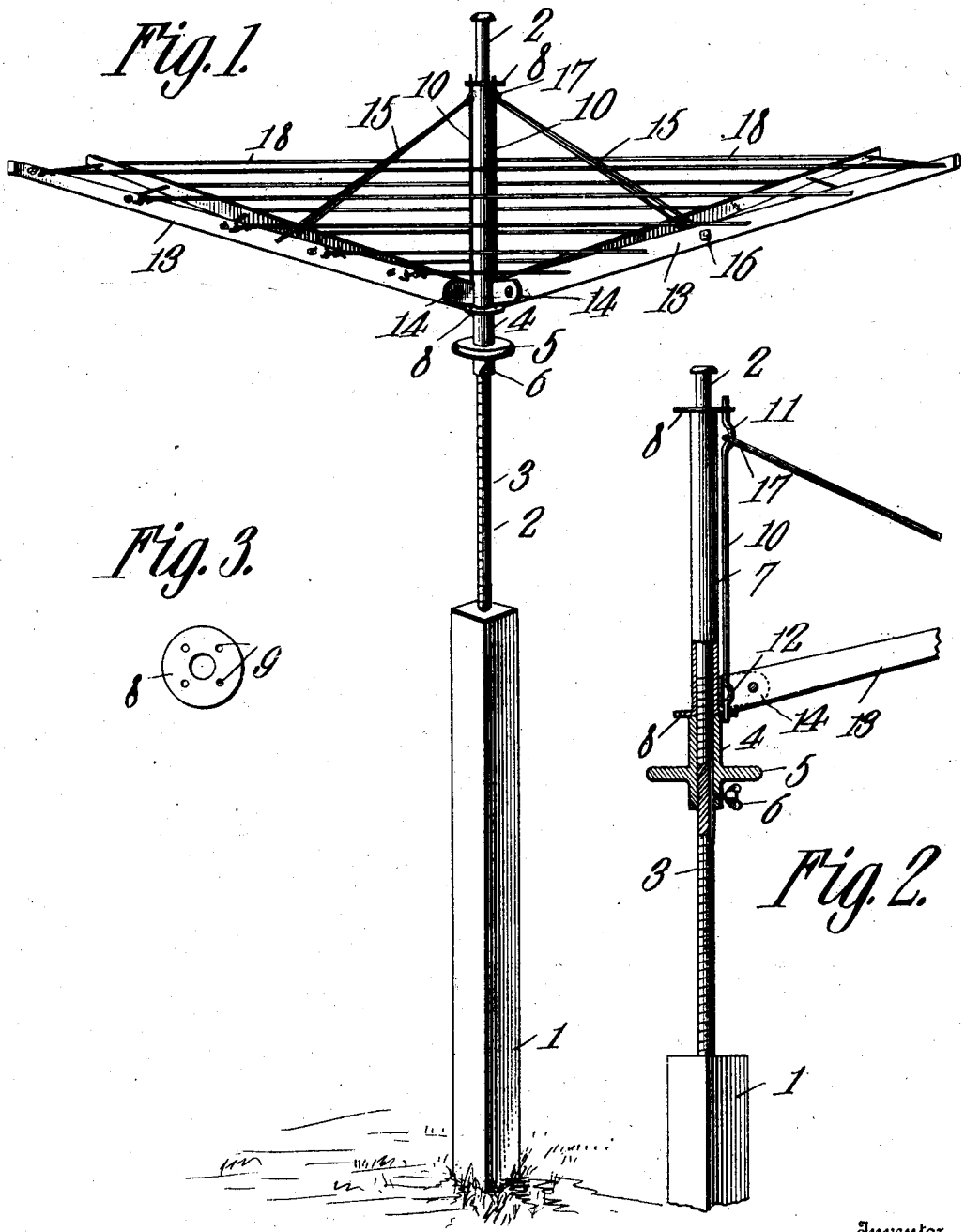


Fig. 3.

Fig. 2.

Witnesses,

E. F. Stewart

J. D. Donegan.

Inventor

William H. Tidland

By C. A. Snow & Co

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. TIDLAND, OF MANKATO, MINNESOTA.

CLOTHES-DRIER.

No. 906,964. Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed March 9, 1908. Serial No. 420,101.

To all whom it may concern:

Be it known that I, WILLIAM H. TIDLAND, a citizen of the United States, residing at Mankato, in the county of Blue Earth and State of Minnesota, have invented a new and useful Clothes-Drier, of which the following is a specification.

This invention relates to clothes driers, particularly to the type known as reels, and has for its object to provide a device which may be adjusted to different heights from the ground with the least possible effort on the part of the operator.

Another object of this device is to render the parts readily detachable, so that when the device is not in use the arms may be detached and kept sheltered from the changes of the weather, thus adding greatly to the life of the device, and at the same time keeping the parts which are more or less in contact with wet clothes free from dirt.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a perspective view of the device showing the position of the parts when the device is ready for operation. Fig. 2 is a view, partly in section, with a portion of the movable sleeve broken away and showing the means by which the arms are detachably secured to the device. Fig. 3 is an end view of the sleeve showing the apertures in which the detachable arm bars enter.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

A standard 1 which may be formed of wood, metal or other suitable material, and in the present instance is shown anchored in the ground, although it is to be understood that said standard may be held in its normal upright position by being mounted on a platform, brace or otherwise secured. The standard is provided with a central longitudinal bore extending from its free upper end, and into this bore is fitted and rigidly secured an auxiliary standard 2, preferably formed of a metallic rod exteriorly threaded and having a longitudinal groove the function of which will appear later.

An adjustable member is shown in the present instance as a sleeve 4, interiorly threaded and adapted to be operated on the thread formed on the standard 2 and formed integral with the sleeve 4, or otherwise secured thereto, is a hand wheel 5 adapted when turned to cause the sleeve to ascend or descend on the thread 3.

Adjacent one end of the sleeve 4 is a perforation extending inwardly and terminating in the bore of the sleeve. This perforation is threaded and serves to receive for the wing bolt 6 adapted to enter the perforation and abut the standard 2, thus constituting a fastening means for the sleeve against rotation on the standard 2 when the wing nut is screwed tightly against the standard 2. The upper end of the sleeve 4 is accurately turned and forms a flat bearing surface for an arm supporting drum. The latter is preferably formed round and hollow and of a diameter sufficient to loosely fit over the auxiliary standard 2. The drum is of considerably less length than the standard and on either end of the body portion 7 is formed heads or flanges 8, the lower of which rest on the upper end of the sleeve 4.

It is obvious that with this construction thus far shown, that turning of the hand wheel 5 will cause the sleeve 4 to turn on the thread 3 and to either ascend or descend, as desired, carrying with it the drum. When the sleeve has been adjusted to the required height, it is locked in position by means of the wing bolt 6 the terminal of which is adapted to enter the longitudinal groove. The drum is then free to rotate on the standard 2 and upper end of the sleeve 4 independently of the latter.

The heads or flanges 8 of the drum are provided with perforations 9, usually four or more in number, and which form seats for the ends of rods 10. The latter are of slightly greater length than the drum and adjacent either end are curved outwardly and inwardly, forming shoulders 11 and 12, and lying between and adjacent the flanges 8, the free ends of the rods extending beyond the outer faces of each flange, as clearly shown in Figs. 1 and 2. These arms form supports for radial clothes arms which pro-

ject outward from the standard in a well known manner. The inner ends of the arms are provided with curved recesses conforming to the configuration of the shoulders 12 on the rods 10. The shoulders are permanently held in the recess by means of straps 14 which are preferably made of sheet steel, substantially U-shape, and of slightly less width than the arms 13. These straps are adapted to straddle the bars 10 and arms 13, thus clamping the shoulder in the recess, as shown in Figs. 1 and 2. The bars are retained in their normal position at a slight angle to the horizontal by means of strut bars or braces 15. Extending from the shoulders 11 to the center of the radial bars 13 and having a portion of their bar engaging ends bent at right angles for a length sufficient to exceed the thickness of the bars, a screw thread is formed on the bent portions which enter the perforations in the bars and secured thereto by means of nuts 16 on the opposite end of the strut bars, eyes 17 are formed of a diameter sufficient to encircle the rods 10 and rest in the sockets 11. With this construction it is obvious that the clothes bars are detachably secured to the drum 7, since in order to disengage the same the bars 10 are lifted upwardly until clear of the lower head or flange 8 of the drum. The opposite end of the rod is then drawn downwardly through the aperture in the upper flange 8 and the rod 10, clothes bar 13, and strut 15 are detached from the drum intact.

The advantage of this construction can be easily seen when compared with most devices of this kind now in use, where the bars are rigidly secured to the device and are, therefore, exposed to all conditions of the weather and dirt, dust, and so forth.

In the present device the clothes carrying bars are always kept in a cleaned condition by being detached after use. The present construction embodies comparatively few parts, and less likely to get out of order than most devices now in use, and the employment of a hand wheel and threaded bar renders it possible on account of the small pitch of the thread to raise the arms when supporting heavy wet clothes with comparative ease. The clothes lines are secured to the bars in any well known manner, such as shown in Fig. 1, the bars 13 being provided with transverse perforations through which the lines 18 are passed, one of their ends provided with loops engaging hooks or the like disposed on one face of one of the bars 13. Their opposite ends are provided with knots abutting the face of the bar in which the hooks are secured. With this construction the lines 18 are readily detached from the bars before the latter are detached from the drum.

What is claimed is:—

1. A clothes drier embodying a standard a drum slidingly mounted thereon, rods having their opposed ends detachably secured to said drum, clothes arms secured to one end of said rods and a connection between the middle portion of said arms and the opposite end of said rods.

2. A clothes drier embodying a standard a drum having flanges on either end, mounted on said standard, rods detachably secured to said flanges, radial clothes arms having one end secured to said rods and bars connecting the opposite ends of said rods to the intermediate portion of said arms.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM H. TIDLAND.

Witnesses:
ARTHUR SCHAUB,
R. WACHTLER.