Sept. 30, 1924.

D. CROCKETT

1,510,137

FRICTION GRIP SUSPENDER

Filed Dec. 26, 1923

Fig. 9.

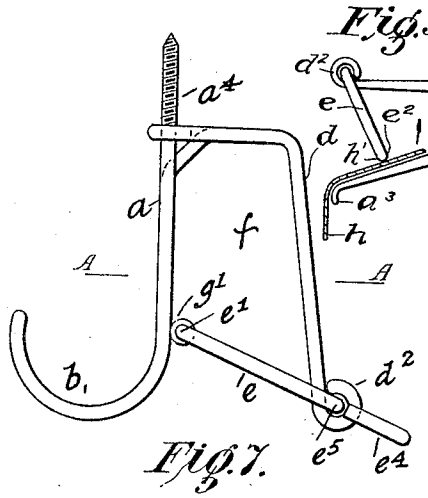


Fig. 7.

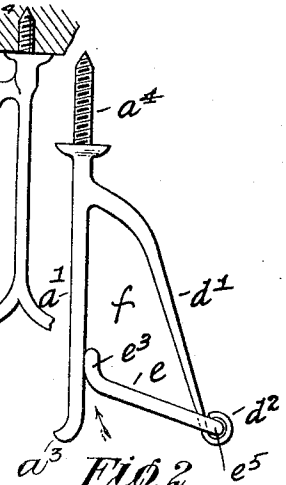


Fig. 2.

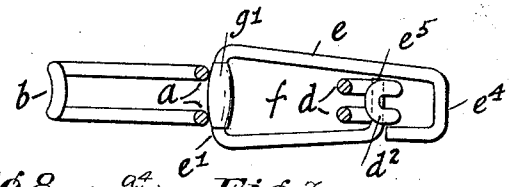


Fig. 8

Fig. 3.

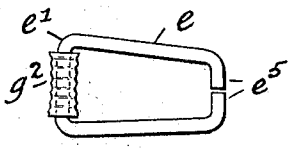


Fig. 4.

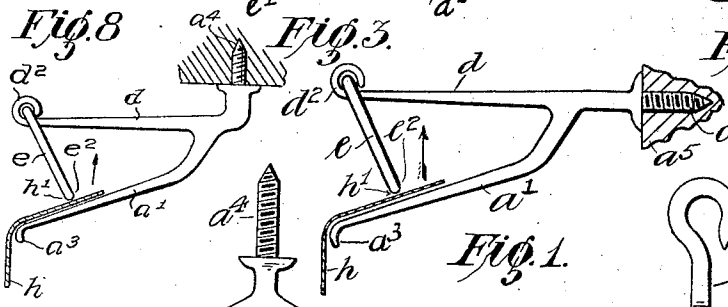


Fig. 1.

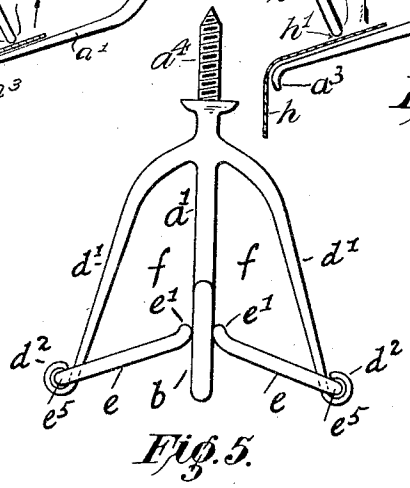


Fig. 5.

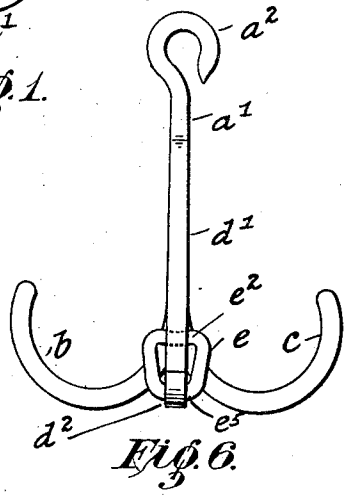


Fig. 6.

DUNCAN CROCKETT, INVENTOR;

By [signature]

his Attorney.

Patented Sept. 30, 1924. 1,510,137

UNITED STATES PATENT OFFICE.

DUNCAN CROCKETT, OF MANSFIELD, VICTORIA, AUSTRALIA.

FRICTION-GRIP SUSPENDER.

Application filed December 26, 1923. Serial No. 682,795.

To all whom it may concern:

Be it known that I, DUNCAN CROCKETT, a subject of the King of Great Britain and Ireland, residing at "Verna," Mansfield, in the State of Victoria, Commonwealth of Australia, have invented certain new and useful Improvements in Friction-Grip Suspenders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My suspenders or holders for towels, curtains, clothing, and other articles, have forks and fork bridging frictional gravity grippers. The forks are for location therein of parts of suspended articles above the gripping surfaces, and the grippers are located where a user can see them. These suspenders are made with or without extra hooks or eyes, and will be used singly, in pairs or in other sets, allowing towels, sheets, and so on to be suspended while spread out and without making holes in them. My suspenders can be used in wardrobes, and can be fixedly or slidably applied to lines or rods.

The grippers will be used with or without rollers, articles being gripped with or without indenting them, as predetermined. For fixing the suspenders they have ends which are screw threaded, or which carry hooks, eyes, or the like. My suspenders are wholly or mainly of metal, (wire or metal rod) and can be suitably coated or sheathed to make them insulators of electricity, or for other purposes.

The pivoted gripper can be a link or ring, having considerable surface to hold an article by frictional pressure, the gripper locating itself in gripping position automatically by gravity. Springiness of the gripper or one or both limbs of the fork is provided in some cases to strengthen the grip.

The application of gravity and of friction for suspending articles is old, but my metal suspender is not only complete in itself, simple, strong, cheap, and easy to install and to remove, it has various other advantages consequent on its novel construction.

Some embodiments of my invention are illustrated in the drawings herewith, but in practice there will be variations within the scope of my claims.

Figure 1 shows one form of my forked suspender.

Figure 2 is a side view of a suspender, the pivot of the gripper of which is not located as in Figure 1.

Figure 3 is a plan in section on line A—A of Figure 7.

Figure 4 shows a gripper carrying a cushioning member.

Figures 5 and 6 show elevations, at right angles to one another, of a suspender having grippers and hooks, but the latter are omittable.

Figure 7 is a side view of a bent wire suspender having a roller on its gripper, and having a hook.

Figures 8 and 9 are practical modifications of my invention.

Any fork limb will be straight, curved, or bent, as predetermined, and be fixed extending in a vertical, horizontal, or other suitable direction.

Some articles persistently slip off hooks, and for that reason it is best to grip them; but by using the same suspender for both grippers and hooks each means of suspension will be utilized according to its suitability, economizing in cost and in space.

In these drawings the fork limb or stem a represents wire, and a^1 metal rod, the stem in Figure 7 having a hook b; the stem in Figures 5 and 6 having two hooks b, c; the suspender of Figures 1, 8 and 9, being at will providable with a hook or hooks.

The suspender end for locating purposes is screw threaded, at a^4, hooked at a^2, or likewise suitably shaped.

In Figures 8 and 9, the end a^4 is located at an angle to the fork instead of in a straight line with one limb of the latter. a^5 represents a wall or member to which a screw threaded end a^4 is fixed; when the screw threaded end is located as shown in Figures 8 and 9, it will screw into wardrobe ceilings, under surfaces of shelves, and so on, and the fork can be close to the latter to save space. When a hook a^2 is used, the suspender can be hung on a nail or other support.

The suspender has, besides stem a or a^1, an arm d or d^1 or a plurality thereof as in Figures 5 and 6 forming one or more forks, of any suitable size and shape. I provide, obliquely located, a pivoted gripper e, having gravity frictional action, which bridges each fork, producing an accessible space f in which part of the gripped article, as the upper edge of a towel, will be located.

In Figures 1 and 2 a free end a^3 of a

limb of the fork extends well away from gripper e to allow of easy insertion (as per arrow in Figure 2) of the article to be suspended. Such an article is represented by h in Figure 1, and it is gripped at h^1. The article top can be grasped by hand, and raised as per the arrow to release the article, as this action will lift the gripper. But to facilitate raising the gripper to release an object without raising that object, or for any other purpose, I show a tail lug or projection e^4 on the gripper in Figures 3 and 7, depression of the tail effecting the said raising.

The pivoted part e^5 of the gripper engages an eye d^2 on a fork limb, the gripper then by the shape and position of the fork being unable to remain standing in raised position. Thus at its free end e^1, e^2, or e^3 the gripper swings against a fork limb, or near enough to grip the article to be suspended. With a long gripper its free end cannot fall out of the fork. When part of an article is inserted in the fork, and the gripper drops then if the article is drawn or allowed to fall a short distance downward, its movement causes the grip to tighten as desired. This is a normal downward tendency of the gripper free end till it can descend no farther.

Grippers of link form are illustrated having broad free ends which may carry a cushion as a roller g^1 or g^2 of resilient or any suitable material, frictional pressure on the article gripped being variable. The gripper free end e^3 is extended lengthwise of fork limb a^1 to secure a large gripping surface. The free end e^2 in Figure 6 is shown recessed, also to increase the gripping surface. Similarly the exterior of the member g^2 is made cylindrical, convex, concave, fluted, corrugated, smooth, pitted, nippled, or of other suitable detail.

I claim:—

1. A supporting device of the character described, comprising a stem provided with a screw shank, an angular projection secured to said stem and having its free end provided with an eye and projecting beyond the free end of said stem, and a gripping member pivoted in said eye and comprising a substantially continuous loop, one portion thereof being disposed transversely of the free end of the said stem and adapted to swing about the pivot towards the said stem to grip material arranged therebetween.

2. A supporting device, as claimed in claim 1, in which said stem and angular projection comprise wires bent to form parallel strands, and the transverse portion of said gripping member is provided with a roller to contact with the interposed material being supported.

3. A supporting device as claimed in claim 1, including a roller having an uneven surface and being loosely mounted on the transversely disposed portion of said gripping member.

In witness whereof I have hereunto set my hand.

DUNCAN CROCKETT.

Witness:

GEORGE G. TURRI.