

J. CARL.
 UNIVERSAL CLUTCH.
 APPLICATION FILED AUG. 30, 1911.

1,037,819.

Patented Sept. 3, 1912.

2 SHEETS—SHEET 1.

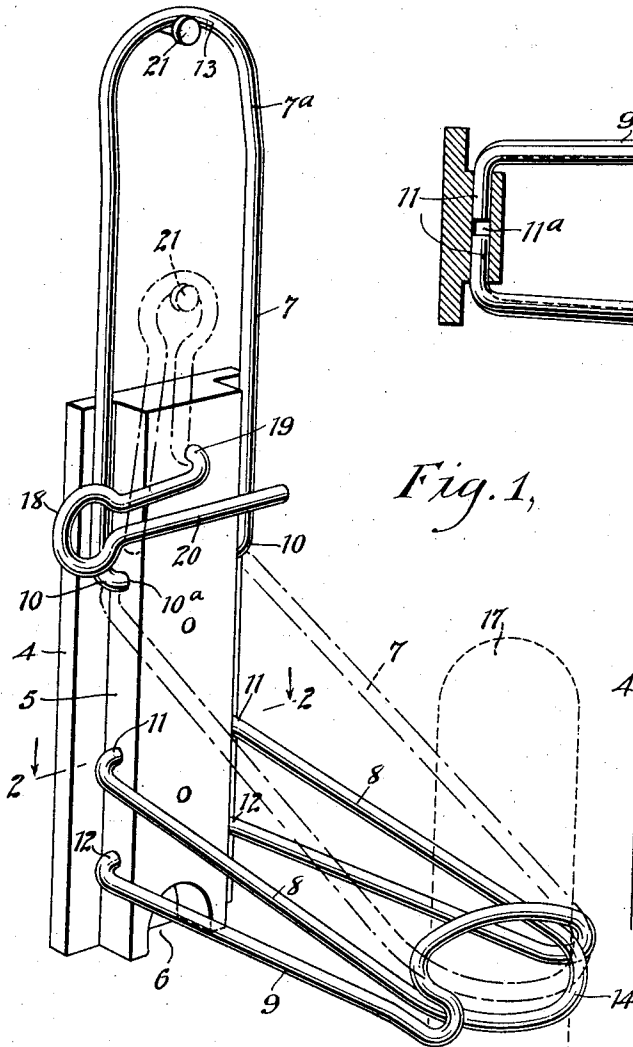


Fig. 1,

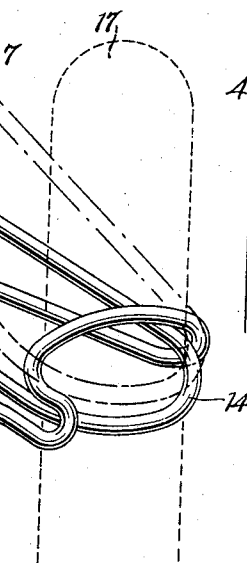


Fig. 2,

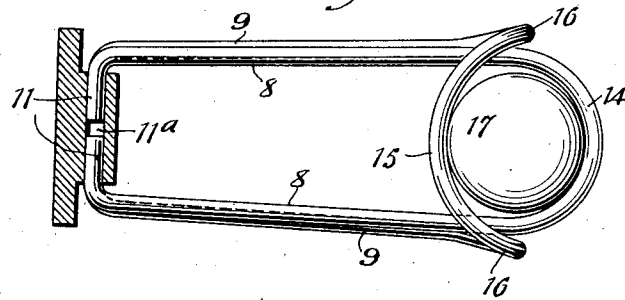


Fig. 3,

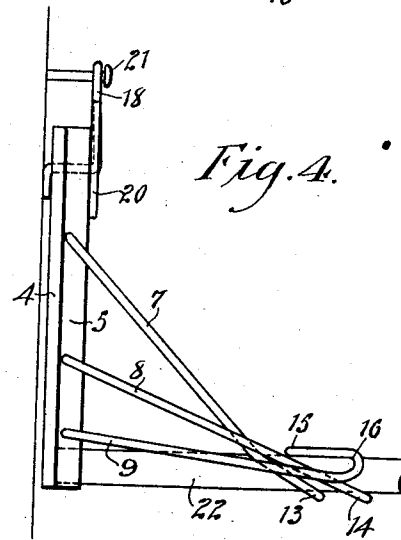
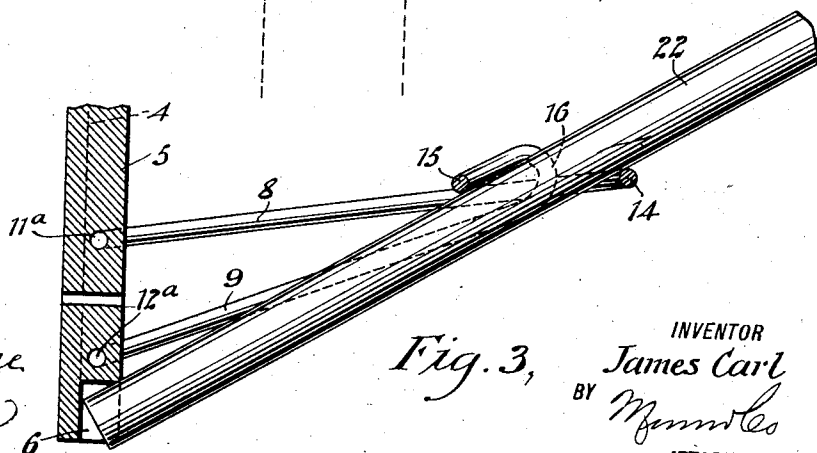


Fig. 4.



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2 SHEETS—SHEET 2.

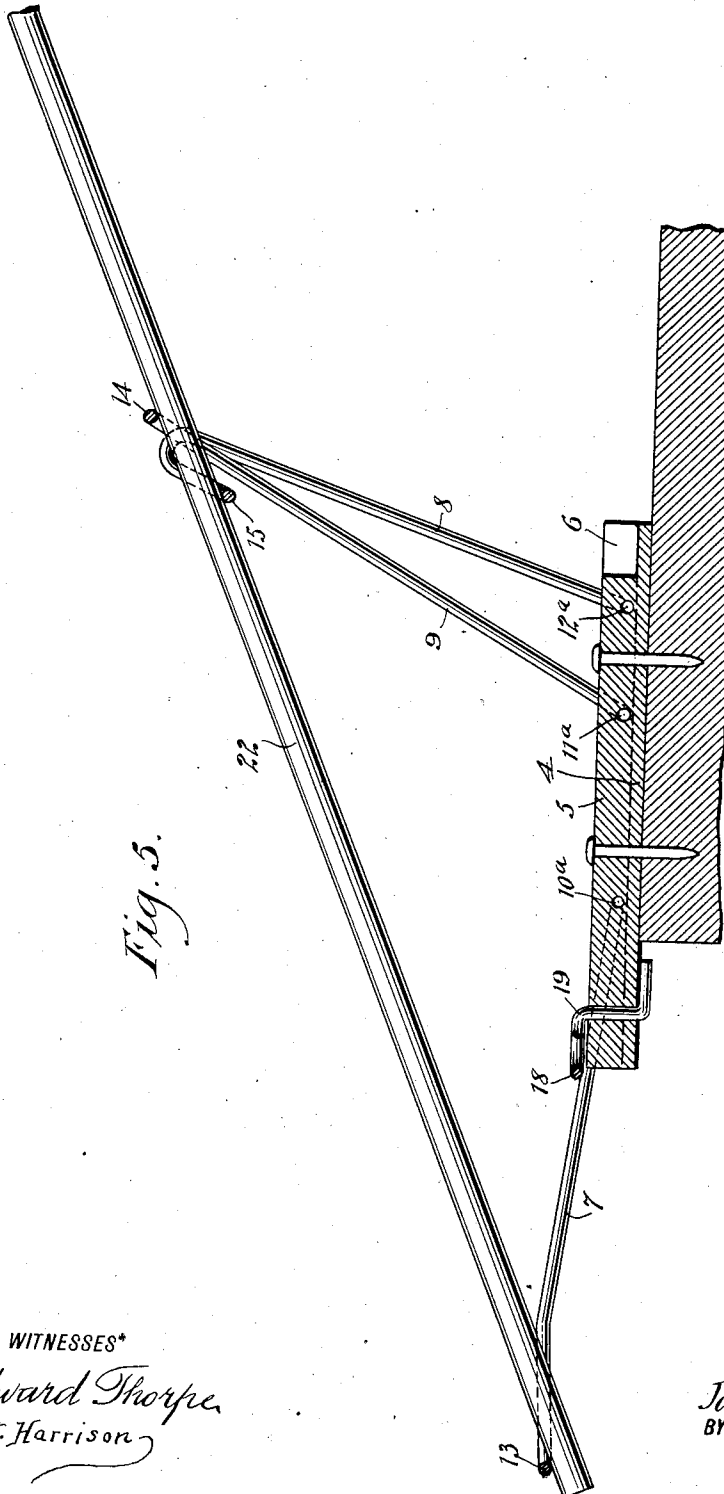


Fig. 5.

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JAMES CARL, OF NEW YORK, N. Y.

UNIVERSAL CLUTCH.

1,037,819.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed August 30, 1911. Serial No. 646,842.

To all whom it may concern:

Be it known that I, JAMES CARL, a citizen of the United States, and a resident of the city of New York, College Point, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Universal Clutch, of which the following is a full, clear, and exact description.

My invention relates to universal clutches, that is, to clutches employed for securing a considerable variety of objects to be held in different ways.

More particularly stated, my invention comprehends a clutch having a body portion and a number of swinging bails or jaws movable relatively to each other and so formed as to grip the article to be supported, the weight of the article aiding materially in the gripping action.

Reference is to be had to the accompanying drawing forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a perspective showing my device complete, and in use; Fig. 2 is a cross section on the line 2—2 of Fig. 1; Fig. 3 is a fragmentary vertical section through the lower portion of the device and showing it as used for supporting a flag-staff; Fig. 4 is another view in side elevation, showing how the parts of my complete device cooperate to support a flag-staff in horizontal position; and Fig. 5 is a vertical longitudinal section, showing another manner in which the device can be used, with the parts in position to hold the flag-staff and at the same time prevent the same from tilting.

A base 4 made of wood, metal or any desired material, is provided with a body portion 5 and with a notch 6, the latter being disposed at the lower end. Three bails 7, 8, 9, each made of a single piece of wire, are provided respectively with end portions 10, 11, 12, these end portions of each bail mating each other and inserted in holes 10^a, 11^a, 12^a in the body portion. The bail 7 is provided with a portion 7^a bent slightly out of alinement with the principal portion of the bail. The portion 7^a merges into a substantially semi-circular portion 13 disposed in the same general plane as the portion 7^a. The bail 8 is likewise provided with a semi-circular portion 14. The bail 9 is provided

with a semi-circular portion 15, the curvature of which, however, is less than that of either portion 13 or 14. The semi-circular portion 15 is formed by bending the bail 9 abruptly upon itself at the points 16.

At 17 is the article to be secured, say, a broom handle or a bottle neck.

An eye 18 is made of a single piece of wire and is provided with a neck portion 19 extending through the base and serving as a revoluble pivot so that the eye may be turned into different positions, as indicated by dotted and full lines in Fig. 1. The eye 18 is further provided with a straight portion 20 and is of such form and proportions that when turned into the position indicated by full lines in Fig. 1, the entire eye, including the straight portion 20, extends at both of its ends beyond the adjacent portion of the bail 7. The eye, when turned into the positions indicated in full lines in Fig. 1, serves as a locking button for holding the bail 7 in a position substantially parallel.

A nail or pin 21 is driven into the wall and serves as a convenient support for the clutch, as indicated in Fig. 1.

A flagstaff 22 may be supported by aid of my clutch, as indicated in Fig. 3.

The operation of my device is as follows: The parts being arranged and assembled as shown, the bail 8 extends between the semi-circular portion 15 and the body portion of the bail 9 so that the two bends 16 are disposed upon opposite sides of the bail 8. The bails 8 and 9 are thus rendered slidable relatively to each other, and are so connected at their outer or free ends that they swing substantially as a unit. When these two bails are swung upwardly at their outer free ends, the semi-circular portion 15 of the bail 9 and the semi-circular portion 14 of the bail 8 are moved apart. The object to be supported, say, a broom handle 17, may be inserted between the two semi-circular portions mentioned and effectively gripped by swinging these members downward, the weight of the article to be supported facilitating this purpose. If the article to be supported is quite light and easily held, the bail 7 may be swung upwardly as indicated in Fig. 1, and locked in this position by aid of the eye 18 which now serves the purpose of a locking button. By aid of the bail 7 the clutch may now be taken down, if desired, and moved to some other part of the

house, the bail 7 maintaining all the while its position, as indicated in Fig. 1. It happens in some instances, however, that as the article 17 to be supported is pressed toward the base by aid of the semi-circular portion 14 and pressed away from the base by aid of the semi-circular portion 15, the article may tend to incline. This is particularly the case if the article be short and light. In order to overcome this difficulty, the eye 18 may be swung upward; that is, into the position indicated by dotted lines in Fig. 1, and thus used as an eye for sustaining the base, the bails and the article to be supported by the bails. In this event the bail 7 is swung downwardly, as indicated by dotted lines in Fig. 1, the semi-circular portion 13 being hooked over the top of the article 17 and brought into engagement with the same. The article 17, being engaged by three semi-circular portions of as many bails, now takes up a resultant or compromise position, and is thus supported. Moreover, the support now given it is more secure than would be obtained by the use of merely two bails.

For purposes of supporting a flag-staff, I employ merely the two lower bails 8, 9 disposed as indicated in Fig. 3. The flag-staff 22 is inserted between the semi-circular portions 14, 15 of the bails 8, 9, and the flag-staff being now inclined, its lower end is lodged in the notch 6. The weight of the flag-staff, by its tendency to swing the bails 8, 9 downwardly, causes the bails to grip the flag-staff which is now supported in an inclined position, as indicated in Fig. 3. For the purpose of sustaining a flag-staff, the base may be supported by the bail 7 or by the eye 18, as desired. If desired, I may also use the clutch in the manner shown in Fig. 4, to cause the bail 7 to cooperate with the bails 8 and 9, in supporting a flag-staff in horizontal position. In this view the flag-staff passes between the portions 15 and 14 of the bails 8 and 9, respectively; and the bail 7 is in such position that its curved portion 13 passes beneath the flag-staff 22.

The view designated as Fig. 5 shows the supporting body or base 4 in a horizontal position. The bails 8 and 9 slant to some extent to the right; and the flag-staff 22 passes in an inclined direction between the semi-circular portions 14 and 15 of these two bails. These semi-circular portions grip the flag-staff and hold the outer end elevated, while the bail 7 is held in substantially horizontal position by the member 18, and the semi-circular portion 13 of this bail 7 engages the inner end of the flag-staff and prevents the same from tilting or toppling over.

I do not limit myself to any particular materials to be employed in making any or all parts of the universal clutch above de-

scribed; neither do I limit myself to any particular shape of any part except as may be determined by my claims which define the scope of my invention. Again, I do not limit myself to any particular use to which the clutch may be employed, as it may be used in a variety of independent relations, those above recited being merely typical instances.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. The combination of a body member provided with holes, a pair of bails journaled in said holes and adapted to swing relatively to each other, one of said bails being slidable relatively to the other, and a third bail mounted to swing upon said body member, said third bail being adapted to swing into proximate engagement with said first-mentioned bails for the purpose of co-acting therewith as a clutch member, and being also free to swing into a position substantially parallel with the general plane of said body member for the purpose of supporting said body member and all parts dependent therefrom.

2. The combination of a body member provided with holes, a plurality of bails provided with end portions turned inwardly and mating each other, said end portions extending into said holes so that said bails are free to swing relatively to said body member, two of said bails slidably engaging each other and adapted to grip opposite sides of an article to be supported, another of said bails adapted to co-act with said two bails for supporting said article at one time and at another time being adapted to swing into a plane coinciding substantially with the general direction of the extent of said body member, and means for locking said last-mentioned bail in said last-mentioned position.

3. The combination of a body member, bails journaled thereupon and provided with co-acting surfaces for gripping an article to be supported, another bail journaled upon said body member and adapted to swing into proximate gripping engagement with said first-mentioned bails and also to swing into a plane independent of the planes of said first-mentioned bails, and an eye journaled upon said body member and free to turn relatively thereto, said eye when turned into one position serving as a locking button for holding said last-mentioned bail in a supporting position, said eye further serving, when turned into a different position, as a means for supporting said body member and parts dependent thereupon.

4. A device of the character described comprising a body member, clutch members journaled thereupon and adapted to swing, said clutch members being movable rela-

tively to each other and provided with gripping surfaces for supporting an article when aided by the weight of said article, another clutch member provided with a surface for gripping an article, said last-mentioned clutch member being mounted upon said body member and being free to co-act with said first-mentioned clutch members for the purpose of gripping the same article to be supported, and means controllable at will

for temporarily rendering said last-mentioned clutch member inactive.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES CARL.

Witnesses:

WALTON HARRISON,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."