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CLOTHESPIN

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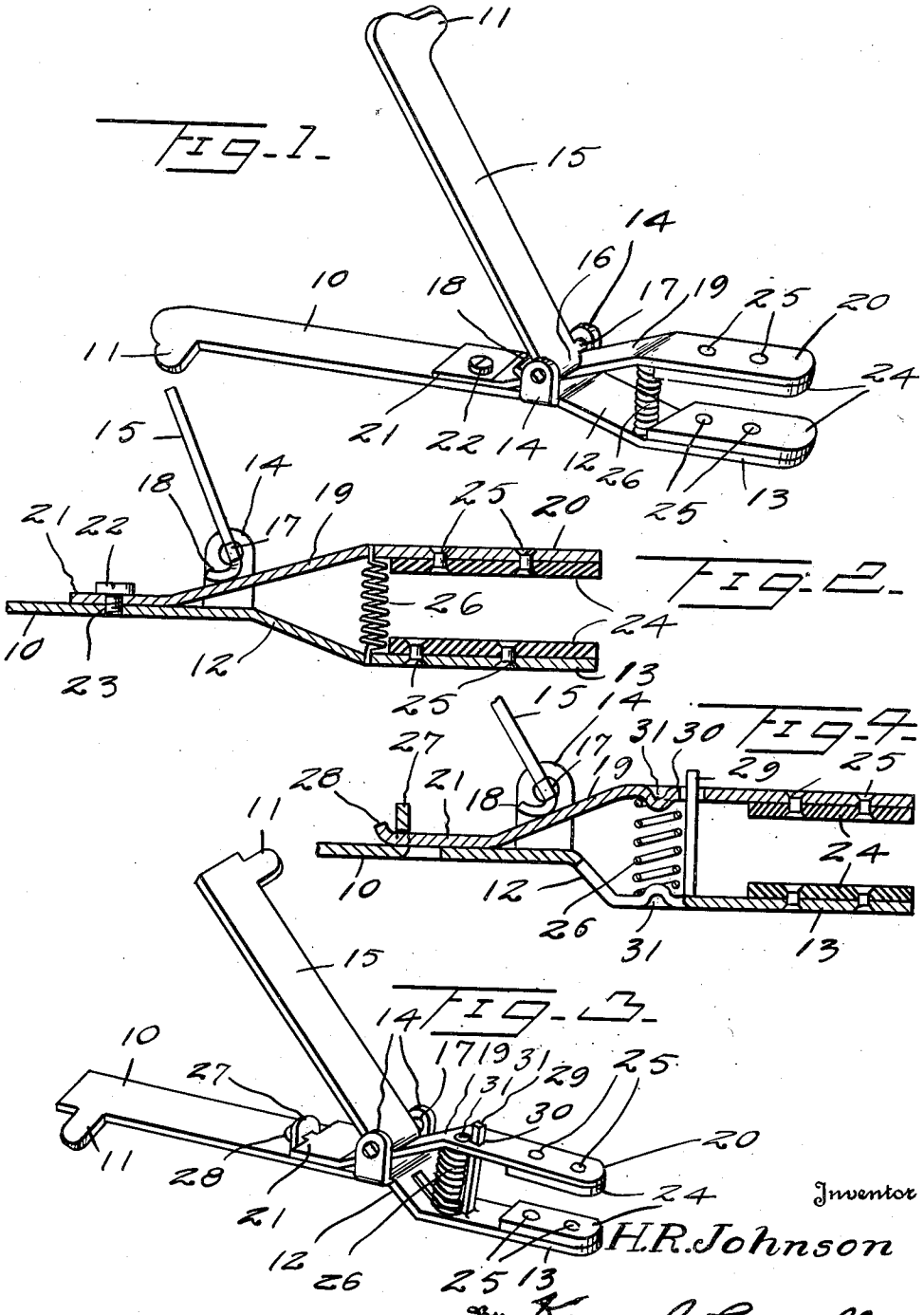

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## CLOTHESPIN

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4 Claims. (Cl. 24—137)

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My invention relates to clothespins and more particularly to one in which the clamping jaws are held by a cam locking lever or device in which the locking action is affected particularly in passing over the dead center of movement to compress the jaws toward each other or together and lock them fast or tight on the line and clothes or other articles folded thereon.

Heretofore, clothespins have been very unsatisfactory in that they do not securely fasten the articles to a line. At the present time there are particularly two well-known clothespins or types on the market. One of the wooden slip-on type, forked or provided with a kerf to wedge over the articles folded on a line and the other having spring pressed and usually wooden jaws with opposed recesses to accommodate the line and clothes, which relies upon the gripping action of the spring holding the jaws in assembled relation. However, such pins are unsatisfactory, especially during high winds and in holding small articles since the wedging or gripping action is not sufficient to prevent the clothes from being blown from the line, thereby necessitating rewashing or entire loss of the articles by being blown away. The object of the present invention is to provide a novel and simple metallic or like clothespin which will firmly grip and lock the clothes on the line so as to prevent the same from blowing loose and obviating the difficulties and objections heretofore experienced in connection with prior devices.

To the foregoing objects, and others which may hereinafter more fully appear, the invention consists of the novel construction, combination and arrangement of parts, as will be more specifically referred to and illustrated in the accompanying drawings, but it is to be understood that changes, variations, and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a perspective view of a clothespin embodying my invention.

Figure 2 is a fragmentary longitudinal sectional view of the clothespin shown in Figure 1.

Figure 3 is a perspective view of a slightly modified form of clothespin from that shown in Figures 1 and 2.

Figure 4 is a sectional view similar to Figure 2 of the clothespin shown in Figure 3.

Referring to the drawing, and particularly to the clothespin shown in Figures 1 and 2, the same is shown as comprising three main parts, namely, the elongated body or handle 10 which is in the

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form of a flat strip provided with a lateral tab or lug 11 at its free or rear end and formed with an obtuse angled front portion 12 with its free end portion or jaw 13 extended in spaced offset relation to the handle 10 but in the same direction parallel thereto. The handle 10 at the angular bend of the portion 12 is provided with stamped-out or struck-up apertured lugs 14 extending in the same direction at the inner side of the handle 10 to pivotally mount a handle or lever 15 corresponding in formation to the handle 10 from the lugs 14 outwardly, except that tab 11 extends in an opposite direction.

The handle or lever 15 is provided with a curled bearing or angular portion 16 mounting a pivot 17 which may be formed as projections upon the side edges thereof to engage the apertures of the lugs 14 and pivotally mount the handle or lever 15 thereon for movement toward and away from the handle 10 as clearly shown in the drawing. The pivoted end of the handle 15 is provided with an extending cam 18 of somewhat arcuate formation and adapted to engage the oppositely inclined beveled portion 19 opposing the portion 12 and divergent therefrom toward the free end or jaw 20 which is parallel to the handle 10 and the jaw 13 and angularly bent at obtuse angles in the same manner as described in connection with the portions 12 and 13. The portion 19 is formed from a strip of the same width as the portions 10, 12, 13 and 15 and converges toward the handle 10 where it is bent at obtuse angles to provide an anchoring end portion 21 which is secured to the handle 10 in any suitable way, as by means of a screw 22 engaging threaded apertures 23 in the handle 10 or both portions 10 and 21 with the portion 19 extending between the lugs 14 and under the pivot 17 and cam 18 so that the jaws 13 and 20 are disposed in opposed spaced parallel relation to embrace a line and clothes folded thereon.

The inner surfaces of the jaws 13 and 20 may be provided with correspondingly shaped jaw faces 24 riveted or otherwise secured thereto as indicated at 25 and preferably composed of some non-marking composition which will compress slightly yet stand up under moisture and pressure, such as felt, paper mache, semi-soft rubber, leather or the like. If desired, the jaws 13 and 20 may be held apart by suitable spring means 26, instead of depending upon the natural spring qualities or resiliency of the strips composing the parts 12 and 19, although the latter by reason of being of spring steel, Phosphor bronze or hardened and temperate metal or alloy,

are ordinarily sufficient to normally spring apart.

The jaws 13 and 20 are forced together by swinging the handle or lever 15 toward the handle 10, the leverage being applied to the handle 15 to cause the jaws to be forced together or toward each other against the clothesline and articles folded thereon, but more especially by movement of the jaw 20 at the portion 19 by reason of the pressure caused by the cam 18 against the portion 19, it being noted that the handle 10 and portion 12 are angularly bent in front of the lugs 14, in order to secure a more effective clamping action. A slight pressure with the thumb and forefinger on the handles 10 and 15 or lugs 11 thereof will cause the spreading of the handles 10 and 15 to release the jaws which will automatically separate or spread apart and open to release the same from the line and clothes.

The camming action of the cam 18 results from the same passing over the dead center of movement when the handle 15 is moved or swung toward the handle 10, with the end of the cam 18 engaging the outer face of the part 19 so as to effectively lock the jaws tight and fast in clamping position. This is due to the fact that the arc of the cam 18 increases in radius from the pivot axis 17 toward its free end or recedes in the opposite direction.

In the form of the invention shown in Figures 3 and 4, the construction is the same as that described in connection with Figures 1 and 2 and the parts are similarly numbered, except that instead of anchoring the part 21 to the handle or body 10 in the manner described, as by means of the screw 22, the handle or body strip 10 is provided with a struck-up apertured lug 27 engaged by a reduced rearwardly extending shank or extension 28 on the part 21 so as to be held down against the handle 10 at its inner end portion by reason of the hole or aperture in the lug 27 being provided closely adjacent the inner or top surface of the handle 10. Also, the parts 12 and 13 are provided with a struck-up stem 29 which movably extends through a hole or opening 30 in the jaw 20 adjacent the obtuse angled portion at the juncture thereof with the portion 19 to take a corresponding spring 26, or the latter may be mounted between the jaws 13 and 20 in rear of the jaw faces 24 and the stem 29 with the ends thereof anchored to the jaws in any suitable manner in each instance.

As shown in Figure 4, lugs 31 may be pressed inwardly from the jaws so as to extend into the end convolutions of the spring 26 or so that the ends of the latter will seat thereover in order to retain the spring in position. The action of the spring, the cam and the operation of the clothespin in gripping and releasing the jaws from the clothesline and articles folded thereon is the same as described in connection with Figures 1 and 2 but it will be seen that in either instance the objections and problems created by the use of the present types of clothespins in common use are entirely eliminated by the present device.

Attention is also directed to the fact that the portion 12 is shorter than the portion 19 and bent from the handle 10 in front of the apertured bearing ears or lugs 14 which may be formed on and bent in from the side edges of the strip forming parts 10, 12 and 13. Also, the portion 19 is longer than portion 12 and extends rearwardly or inwardly thereof to meet the handle 10 in rear of the apertured bearing ears or lugs 14 or is bent out or divergent from handle 10 in rear of the obtuse angled bend of the portion 12 therefrom where divergent to a greater degree from portion 12 than from handle 10 so that portions 12 and 19 are spaced apart to permit flexing and movement of portion 19 toward portion 12 under the action of lever or handle 15 and cam 18 thereagainst, in clamping a line between the jaws 13 and 20 and away from the same in the separation and spreading or releasing action of the jaws at cam 18 when handle 15 is moved out or separated from handle 10.

I claim:

1. A clothespin comprising a handle having an angularly bent offset portion with a jaw parallel to the handle at the free end thereof, a second jaw parallel to the handle and first jaw and having an angularly bent portion offsetting the second jaw from the handle and an end portion anchored to the handle beyond said offset portion, lugs formed on the handle adjacent the angularly bent portion, and a second handle having pivot means formed thereon engaged in the lugs and provided with a cam extension to engage the angularly bent portion of the second jaw to force the same toward the first jaw when the second handle is swung toward the first handle and to release said jaws for separation when the second handle is swung away from the first handle, said first and second handles having tabs extending laterally in opposite directions at the free ends thereof for separating the handles and releasing the jaws from clamping position.

2. A clothespin comprising a handle having an angularly bent offset portion with a jaw parallel to the handle at the free end thereof, a second jaw parallel to the handle and first jaw and having an angularly bent portion offsetting the second jaw from the handle and an end portion anchored to the handle beyond said offset portion, lugs formed on the handle adjacent the angularly bent portion, and a second handle having a pivot axis engaged in the lugs and provided with a cam extension to engage the angularly bent portion of the second jaw to force the same toward the first jaw when the second handle is swung toward the first handle and to release said jaws for separation when the second handle is swung away from the first handle, a laterally projecting tab formed on the free end of said first handle, and an oppositely disposed laterally projecting tab formed on the free end of said second handle whereby said tabs may be grasped for separation of said handles.

3. A clothespin comprising a handle having an angularly bent offset portion with a jaw parallel to the handle at the free end thereof, a second jaw parallel to the handle and first jaw and having an angularly bent portion offsetting the second jaw from the handle, lugs formed on the handle adjacent the angularly bent portion, a second handle having pivot means formed thereon engaged in the lugs and provided with a cam extension to engage the angularly bent portion of the second jaw to force the same toward the first jaw when the second handle is swung toward the first handle and to release said jaws for separation when the second handle is swung away from the first handle, a struck-up stem carried by the first jaw and the second jaw having an opening through which said stem movably extends, a spring between the jaws adjacent said stem and having its ends seated on projections at the inner faces of the jaws, and means anchoring an end portion of said second jaw to said first handle including a struck up apertured lug formed on said first handle adjacent the angularly bent

portion thereof, and a reduced shank formed on said end portion of said second jaw engageable in said apertured lug.

4. A clothespin comprising a handle having an angularly bent offset portion with a jaw parallel to the handle at the free end thereof, a second jaw parallel to the handle and first jaw and having an angularly bent portion offsetting the second jaw from the handle and an end portion anchored to the handle beyond said offset portion, lugs formed on the handle adjacent the angularly bent portion, a second handle having pivot means formed thereon engaged in the lugs and provided with a cam extension to engage the angularly bent portion of the second jaw to force the same toward the first jaw when the second handle is swung toward the first handle and to release said jaws for separation when the second handle is swung away from the first handle, the part of the second jaw anchored to the first handle being provided with a reduced shank and the first handle having a struck-up apertured lug engaged by said shank, a struck up stem formed in said first jaw loosely engaging in an opening formed in said second jaw for preventing longitudinal movement of said jaws relative to each other, and a spring mounted between and operatively connected with said jaws.



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