Jan. 6, 1925. 1,522,067

J. P. McBRIDE

LIFTING DEVICE

Filed April 2, 1923

Fig. 1.

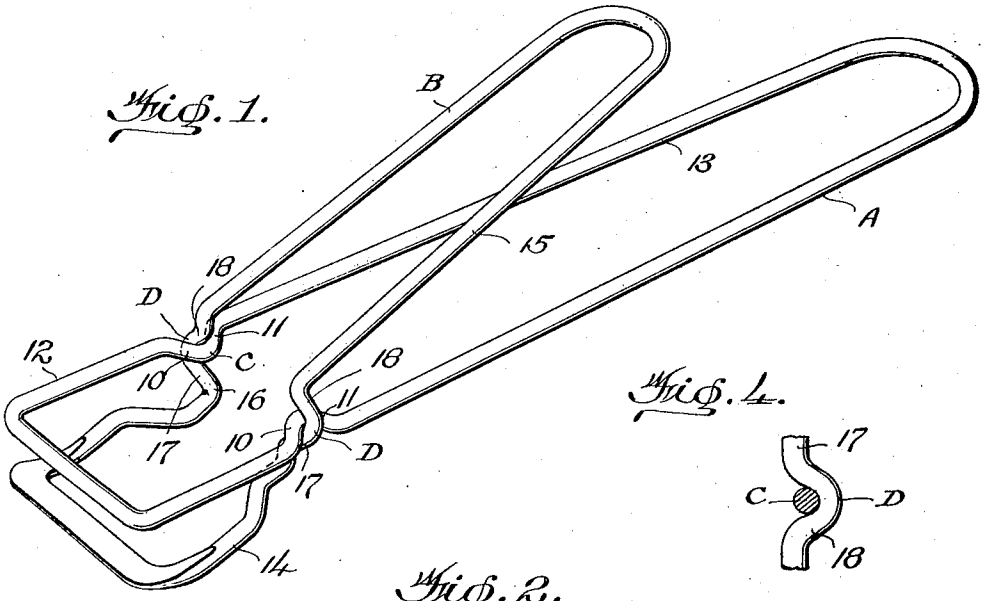


Fig. 4.

Fig. 2.

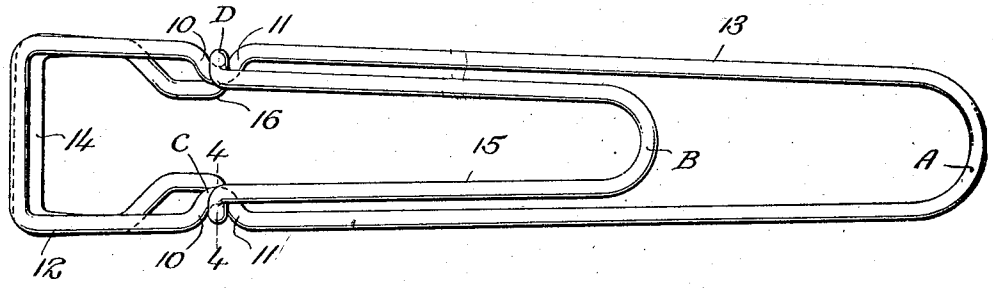


Fig. 3.

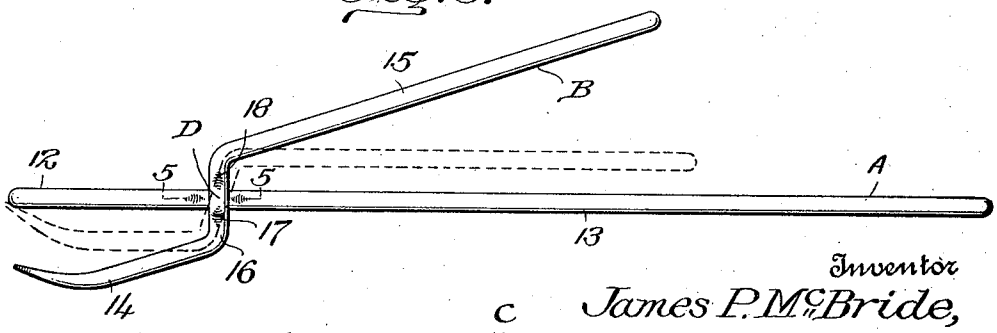
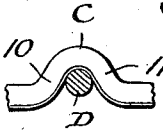


Fig. 5.



Inventor

James P. McBride,

BY Bright & Bailey

Attorneys

Patented Jan. 6, 1925. 1,522,067

UNITED STATES PATENT OFFICE.

JAMES P. McBRIDE, OF BROOKLYN, NEW YORK.

LIFTING DEVICE.

Application filed April 2, 1923. Serial No. 629,434.

To all whom it may concern:

Be it known that I, JAMES P. McBRIDE, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Lifting Devices, of which the following is a specification.

My invention relates to lifting devices and particularly those employed to facilitate the handling of various heated elements in kitchen work, the same being a development of my prior invention as exemplified in my application for patent Serial Number 616,086 filed January 31, 1923.

In the present embodiment of my invention it is my purpose to further improve devices of the type set forth in my aforesaid application by reducting the number of parts, simplifying assembly and materially curtailing the cost of manufacture.

To this end I utilize only two parts in the construction of the device and pivotally connect them through the medium of interfitting formations included respectively in said parts, said interfitting formations being so constructed and arranged as to provide means operating under the influence of the inherent resiliency of said parts to maintain the latter in a given normal relative relation, thus eliminating the use of pivot pins, separate springs, and other adjuncts so common to the construction of devices of this character.

While I will describe my invention as applied to a device of this type particularly adapted for the kitchen use previously indicated, it will be obvious that the principle involved is possessed of a broad range of application without departing from the spirit of my invention, and I therefore desire it understood that it is my intention to cover all embodiments of the invention in analogous structures which can be fairly construed as containing the inventive concept defined in any or all of the appended claims.

In describing the invention in detail reference will be had to the accompanying drawing wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a perspective view of my improved lifting device;

Figure 2, a plan view thereof;

Figure 3, a side view of the device with the parts in normal position in full lines and in an operative position in dotted lines;

Figure 4, a section on the line 4—4 of Figure 2; and

Figure 5, a section on the line 5—5 of Figure 3.

In the drawing my invention is shown as comprising crossed skeleton frame members A and B, the former extending through the latter. The frame member A is constructed of a single length of wire of the requisite sturdiness and is substantially straight from end to end. At corresponding points in the sides of the member A I provide inwardly directed V-shaped formations C, each including arms 10 and 11. These formations C divide the member into a clamping jaw portion 12 and a handle portion 13. The member B is also constructed from a single length of wire and includes offset jaw and handle portions 14 and 15 respectively and connecting portions 16 therebetween. These connecting portions I provided with outwardly directed V-shaped formations D which are interfitted, as shown, with the formations C to effect pivotal connection of the members A and B. Each of the formations D includes arms 17 and 18.

As a result of the pivotal connection previously described, the members A and B are normally held in the relation shown in Figure 1 and in full lines in Figure 3 by their inherent resiliency acting through said pivotal connection. The reason for this resides in the fact that as the member B is moved from the full line position to the dotted line position in Figure 3, the arms 10 and 11 of the formation C coact respectively with the arms 17 and 18 of the formation D to compress the member A and expand the member B. When the pivoting force is then removed from the members A and B, said members respectively expand and contract transversely under the influence of their resiliency and this expansion and contraction reacts through the arms 10—17 and 11—18 respectively to return the members A and B to their normal relation as shown in Figure 1 and the full lines in Figure 3. Stated a little differently, the arms 10—17 and 11—18 constitute coacting cam elements serving to compress and expand the members A and B transversely respectively when the member B is moved from the full to the dotted line position in Figure 3; and actuated by expansion and contraction of said members

when the member B is released to return said members to their normal relative relation.

I claim:—

1. A device of the character described comprising a pair of skeleton members crossing one within the other and having oppositely directed interfitting notched portions pivotally connecting them.

2. A device of the character described comprising a pair of skeleton members crossing one within the other and having oppositely directed interfitting notched portions pivotally connecting them and providing means operating under the influence of the inherent resiliency of the members to normally maintain said members in a given relative relation.

3. A device of the character described comprising a pair of skeleton members crossing one within the other and having oppositely directed interfitting notched portions pivotally connecting them and providing coacting cam elements operating under the influence of the inherent resiliency of the members to normally maintain said members in a given relative relation.

4. A device of the character described comprising a pair of crossed skeleton frame members having respectively oppositely directed interfitting V-shaped portions at the points of crossing pivotally connecting the members together, the arms of said portions coacting under the influence of the inherent resiliency of the members to normally maintain them in a given relative relation.

5. A device of the character described comprising a pair of skeleton frame members one of which is straight and the other having offset terminals and connecting portions therebetween crossing the first member, and opposed interfitting V-shaped formations included in the first member and the connecting portions of said second member respectively pivotally connecting the members; the arms of said formations forming coacting cam elements operating under the influence of the inherent resiliency of the members to normally maintain the latter in a given relative relation.

In testimony whereof I hereunto affix my signature.

JAMES P. McBRIDE.