No. 686,415. Patented Nov. 12, 1901.

M. C. MILLER.

LIFTING DEVICE FOR FLANGED ARTICLES.

(Application filed Mar. 2, 1901.)

(No Model.)

Fig. 2.

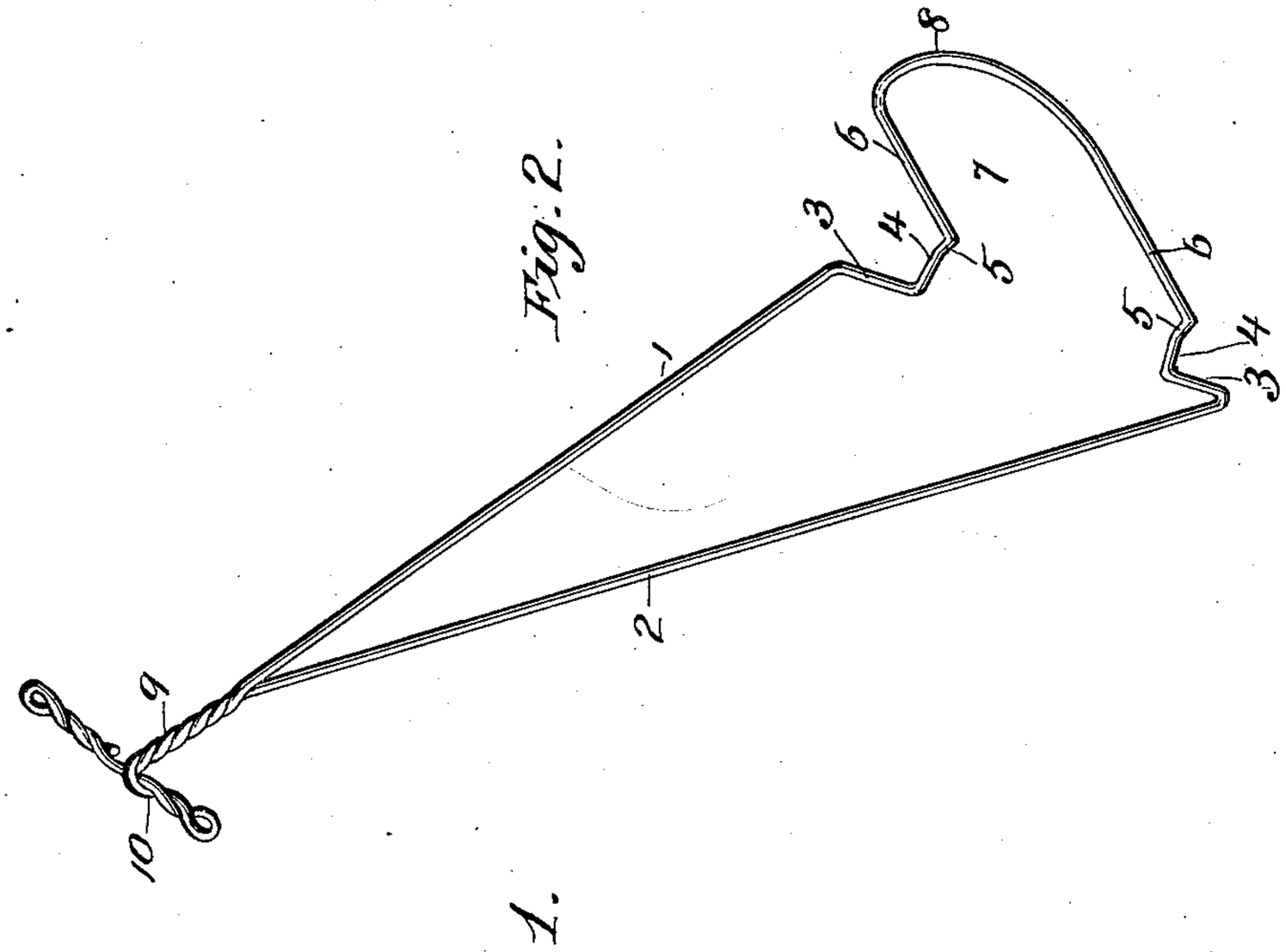
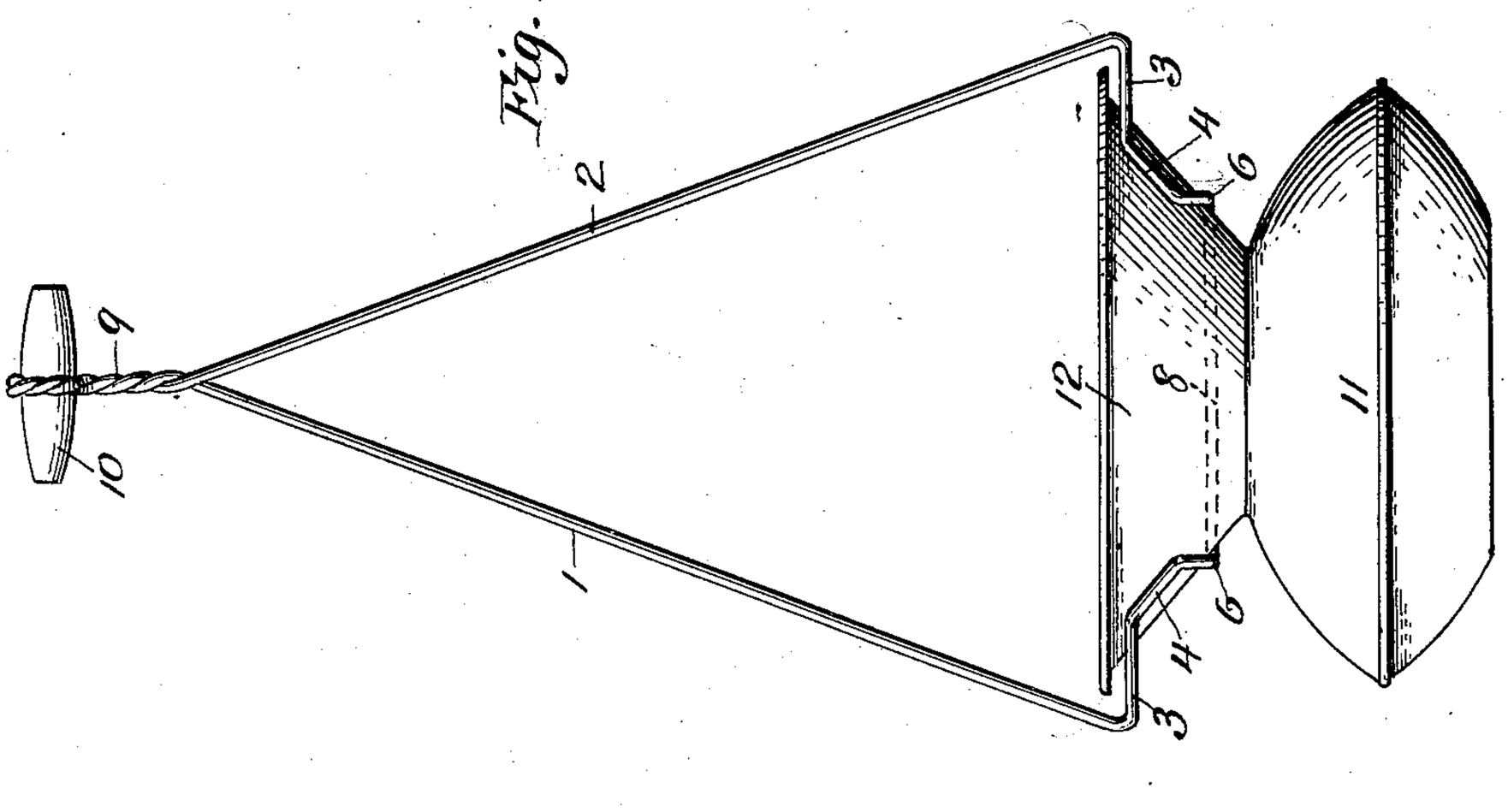


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

MORTON C. MILLER, OF CORYDON, INDIANA.

LIFTING DEVICE FOR FLANGED ARTICLES.

SPECIFICATION forming part of Letters Patent No. 686,415, dated November 12, 1901.

Application filed March 2, 1901. Serial No. 49,631. (No model.)

To all whom it may concern:

Be it known that I, MORTON C. MILLER, a citizen of the United States, residing at Corydon, in the county of Harrison and State of Indiana, have invented a new and useful Lifting Device for Flanged Articles, of which the following is a specification.

My invention relates to new and useful improvements in apparatus for lifting flanged articles in which a handle portion coöperates with an embracing part which is designed to be applied to the article and when so applied remain in such position during the lifting operation, securing the article from falling or slipping from the embrace of the device when being so lifted, the whole comprising a single rigid frame having no working part and being designed for instant application to or disengagement from the article to be lifted; and the objects of my improvement are, first, to provide a simple, cheaply constructed, and efficient lifter for flanged articles; second, to afford apparatus of one piece having no working parts and capable of instant application to or disengagement from an article to be lifted without any manipulation except the placing of the same with relation to the article to be lifted and the action of lifting the same, and, third, to provide such a device consisting of a single piece of material. I attain these objects in the device illustrated in the accompanying drawings, in which—

Figure 1 is an elevational view of my device applied to and in position for lifting a cuspidor, and Fig. 2 a detail view in perspective of my device alone.

Similar figures refer to similar parts throughout both views.

Referring to the drawings, two reaches 1 2, of wire, diverging, are bent at their lower ends to form inwardly-projecting portions 3 3. The inner ends of the portions 3 3, referring to Fig. 1, are bent downwardly and backwardly, forming the portions 4 4, the lower ends of which portions 4 4 are bent further downwardly and backwardly, meeting the reaches 6 6, which are connected by the curvilinear portion 8. The upper ends of the reaches 1 2 are twisted together at 9 and may be caused to embrace a wooden handle 10, as shown in Fig. 1, or, as is preferable, may be twisted into the form of the handle 10, as shown in Fig. 2. The space 7 within the reaches 6 and the curvilinear portion 8 is designed to receive the flange of the cuspidor, and the curvilinear portion 8 is preferably caused to conform to the configuration of said flange, and the reaches 6 I prefer to make at right angles to or forming a slight acute angle with the reaches 1 2, and said reaches 6 should be of such length as to allow of the article to be lifted to be inserted within the space 7 until its center of gravity is between the reaches 1 2 and the curvilinear portion 8.

The lower ends of the reaches 1 2 should be of such distance apart to allow of the passage between the same of the flange of the article to be lifted, and the bent portions 3 3 should approach each other until the distance between them is less than the width of the flange of the article to be lifted, but which distance is greater than the width of said article below said flange. The portions 4 4 preferably conform to the shape of the under side of the flange—in this case that of a cuspidor, when said article is resting within the space 7. It will be seen that the portions 4 4 will allow of the passage of the lower part of the flange of the cuspidor 11; but when the lifter is raised the flange of the cuspidor will seat upon the reaches 6 6 and the curvilinear portion 8, and the portions 4 4 will prevent the article from sliding out of the device. The twisted portion 9 may be passed through the handle 10 and upset or may be passed around the same or may be twisted so as to form the handle itself, as shown in Fig. 2. The portions 4 4 may be bent at an angle to conform to differently-shaped flanges, and the portions 3 3 may be bent to conform to differently-shaped rims.

It is obvious that various changes in the conformation of my device and the details thereof may be made to suit the shape of the article to be lifted without departing from the spirit of my invention.

The essential features of my invention comprise the combinations with a rigid portion for embracing the article to be lifted and suitable supports for said embracing portions integral with said embracing portion.

I make my device by bending a single length of stiff wire, thereby forming the several parts thereof. The handle may be separately ap-

plied; but I prefer to form the same with the remaining portions from a single length of stiff wire, as above described.

Having now described the several portions of my invention, the method of using is as follows: The operator grasping the device by the handle portion brings the lower portion in proximity to the article to be lifted with a lateral movement, causing the portions 4 4, reaches 6 6, and the curvilinear portion 8 to pass around and embrace the lower or narrowest portion of the flange of the article to be lifted, and then by a vertical movement causes the flange to settle in the depression formed by the said parts and lifts the article without danger of the disengagement of the same.

What I claim, and desire to secure by Letters Patent, is—

1. In a lifter for flanged articles, a containing member designed to embrace said article and having a lateral opening to admit of the insertion therein of said article, upwardly-projecting retaining-lugs at each side of said lateral opening and a supporting member offsetted to admit of the passage of the flange, substantially as described.

2. In a lifter for flanged articles, a U-shaped containing member, upwardly-projecting retaining-lugs at each extremity of said U-shaped member and a supporting member offsetted to admit of the passage of the flange, substantially as described.

3. In a lifter for flanged articles, a containing member designed to embrace said article and having a lateral opening to admit of the insertion therein of said article, upwardly-projecting retaining-lugs at each side of said lateral opening and supporting members forming continuations of said upwardly-projecting lugs, said support members offsetted to admit of the passage of the flange, substantially as described.

4. In a lifter for flanged articles, a containing member designed to embrace said article and having a lateral opening to admit of the insertion therein of said article, upwardly-projecting retaining-lugs at each side of said lateral opening designed to conform to the outer surface of the flange and supporting members, substantially as described.

5. In a lifter for flanged articles, a containing member designed to embrace said article and having a lateral opening to admit of the insertion therein of said article, upwardly-projecting retaining-lugs at each side of said lateral opening, a supporting member offsetted to admit of the passage of the flange, said supporting member substantially at right angles to said containing member, and a handle upon the upper end of said supporting member, substantially as described.

6. In a lifter for flanged articles, a U-shaped containing member, upwardly-projecting retaining-lugs forming continuations of said U-shaped member, a supporting member at right angles to said containing member and forming a continuation of said upwardly-projecting lugs, said supporting member offsetted to admit of the passage of the flange, and a handle integral with the upper extremity of said supporting member, substantially as described.

7. In a lifter for flanged articles, a U-shaped containing member, upwardly-projecting retaining-lugs at each extremity of said U-shaped member, upwardly-converging supporting members offsetted to admit of the passage of the flange, said supporting members forming continuations of said upwardly-projecting lugs, and a handle at the point of meeting of the supporting members, substantially as described.

8. A lifter for flanged articles made up of a single piece of wire which is bent to provide a containing furcated member, upwardly-projecting retaining-lugs at each extremity of said furcated member and a supporting member, substantially as described.

9. A lifter for flanged articles made up of a single piece of wire which is bent to provide a containing furcated member, upwardly-projecting retaining-lugs at each extremity of said furcated member, upwardly-convergent supporting members forming continuations of said retaining-lugs, said supporting members offsetted to admit of the passage of the flange and twisted together at their point of meeting and formed into a handle, substantially as described.

10. A lifter for flanged articles made of a single piece of wire which is bent to provide a horizontal furcated containing member, upwardly-projecting retaining-lugs at each extremity of said furcated member designed to conform to the outer surface of the flange and supporting members forming vertical continuations of said retaining-lugs, said supporting members upwardly convergent and twisted together at their upper extremities to form a handle, substantially as described.

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

MORTON C. MILLER.

Witnesses:
PETER L. KIRSCH,
CHARLES H. BUCHANAN.