

J. KLEIDMAN.
BAG.

APPLICATION FILED SEPT. 20, 1917.

1,338,375.

Patented Apr. 27, 1920.
5 SHEETS—SHEET 1.

Fig. 2.

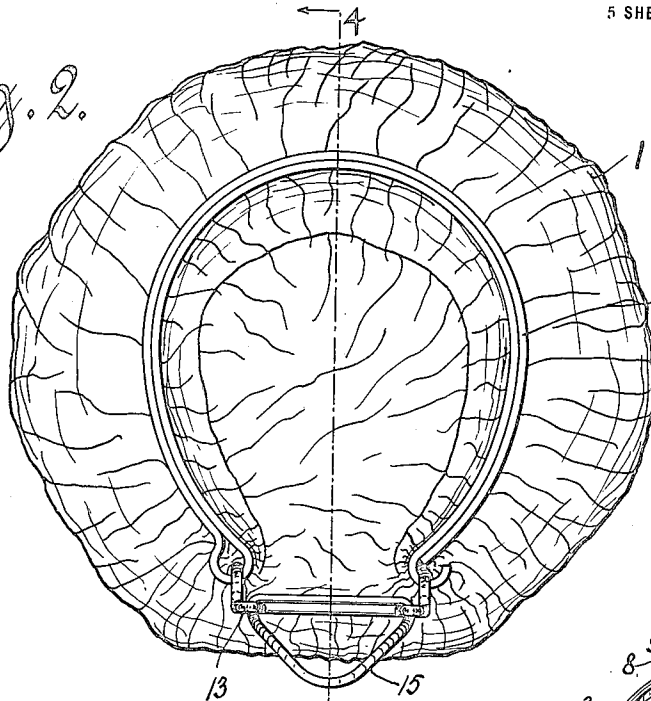


Fig. 1.

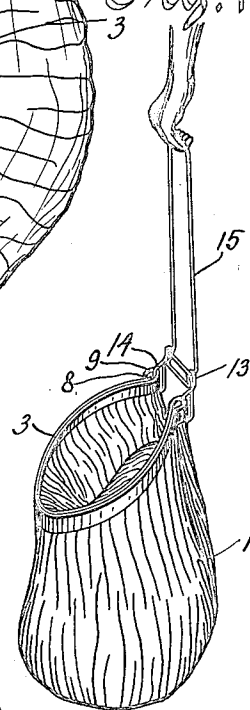
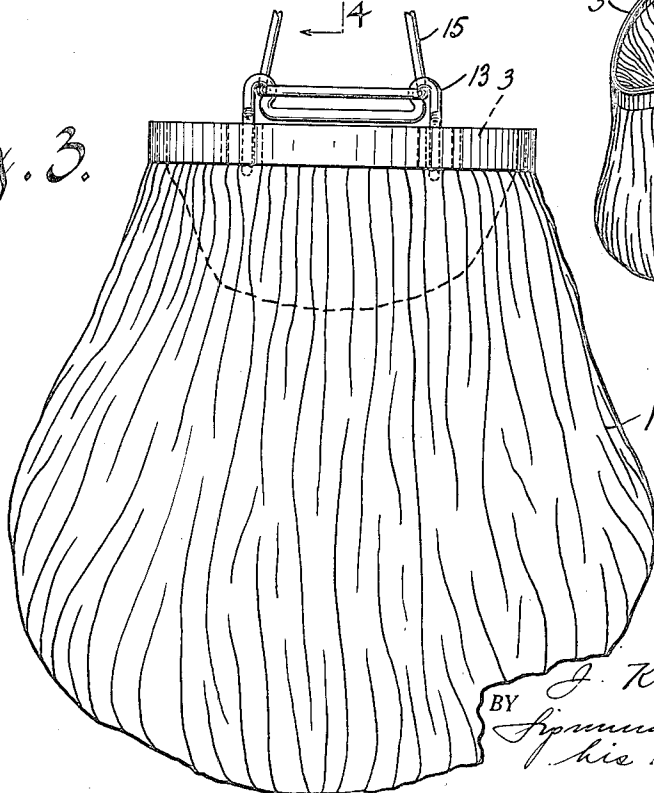


Fig. 3.



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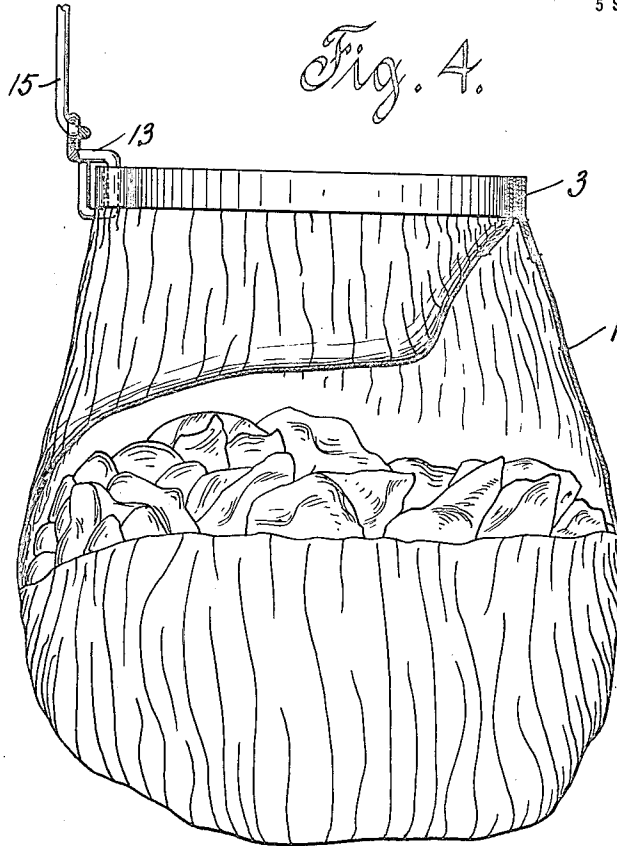
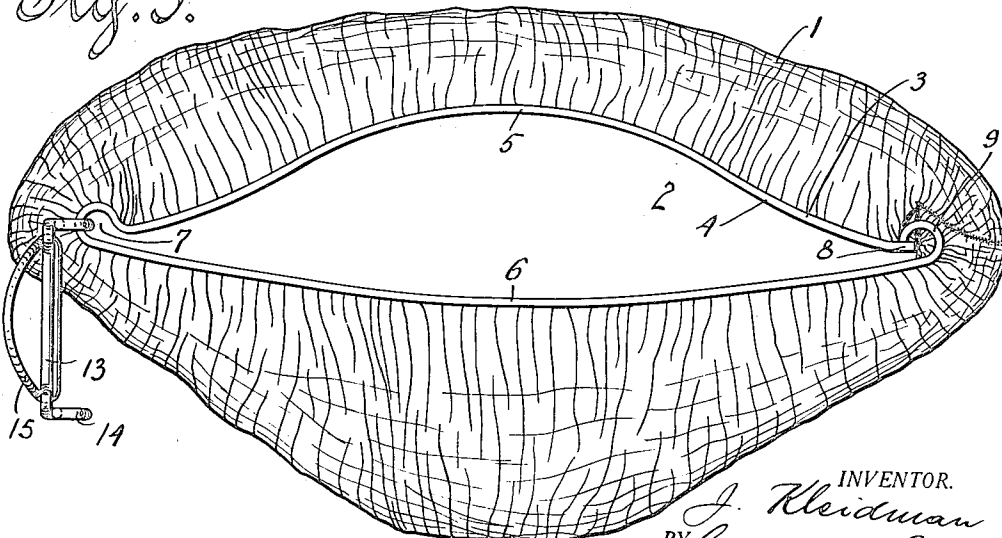


Fig. 5.



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5 SHEETS—SHEET 3.

Fig. 6.

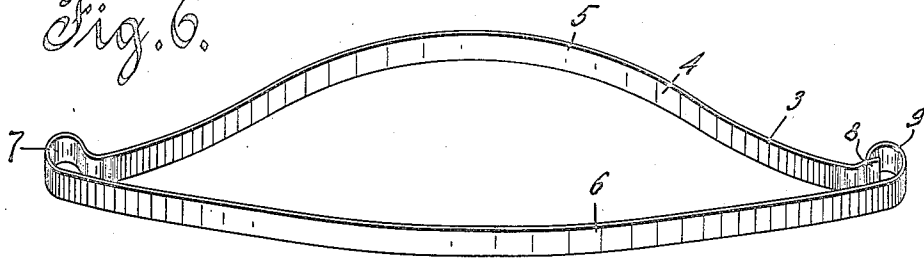


Fig. 8.

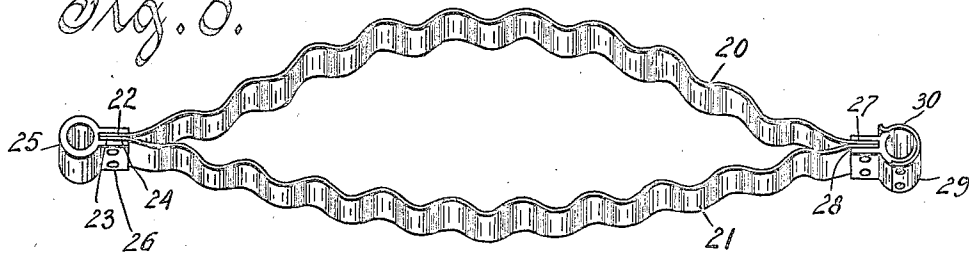


Fig. 9.

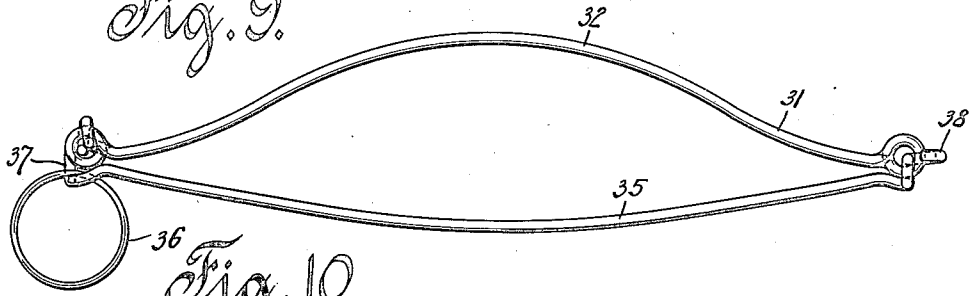
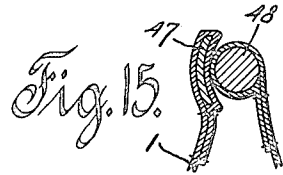
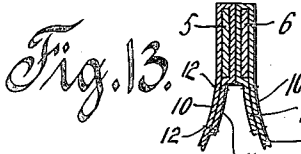
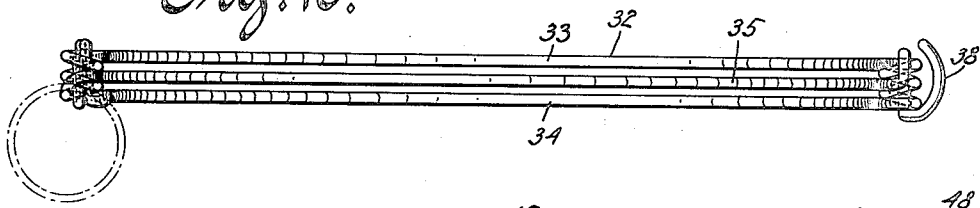


Fig. 10.



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Fig. 7.

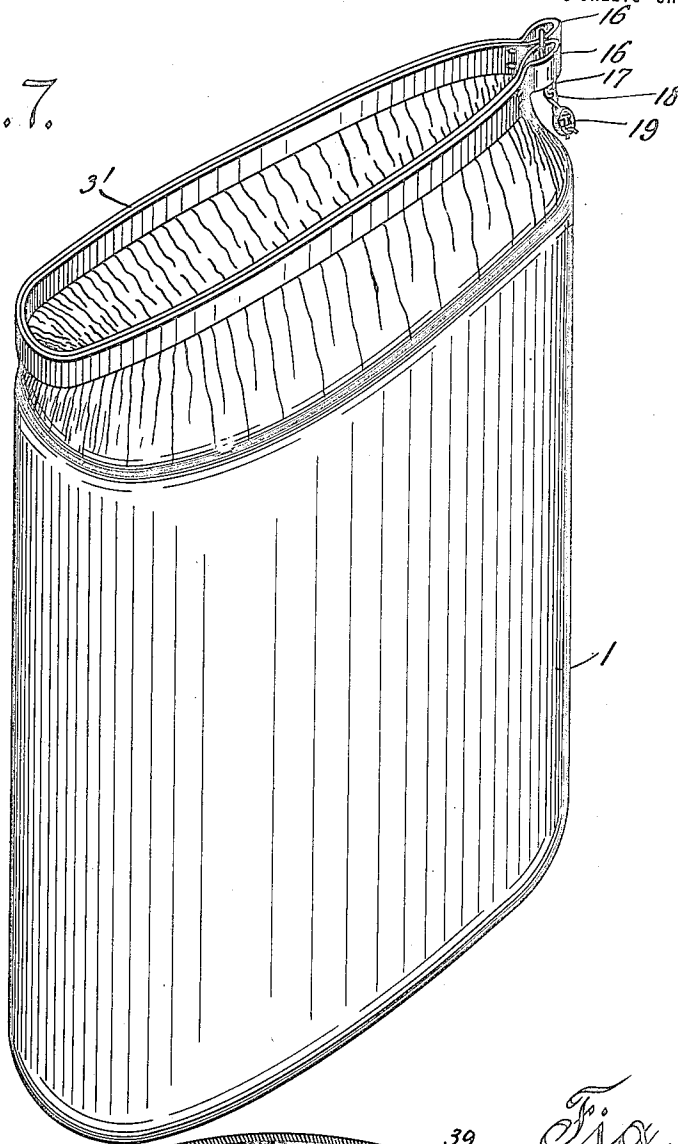
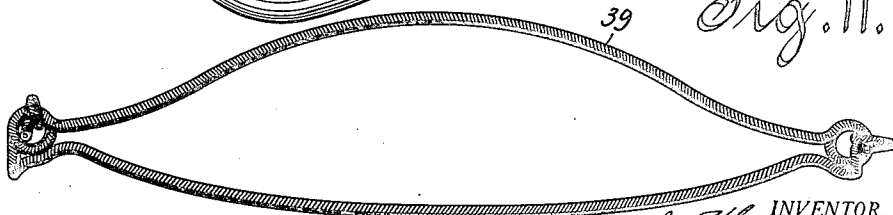


Fig. 11.



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Fig. 12.

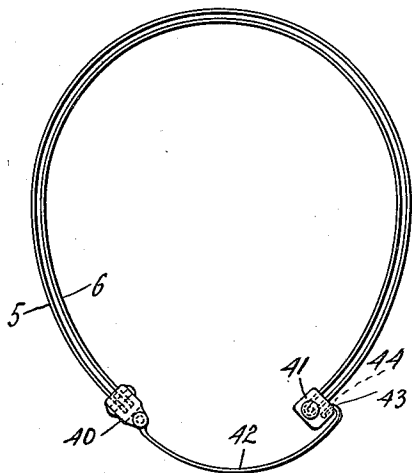


Fig. 20.

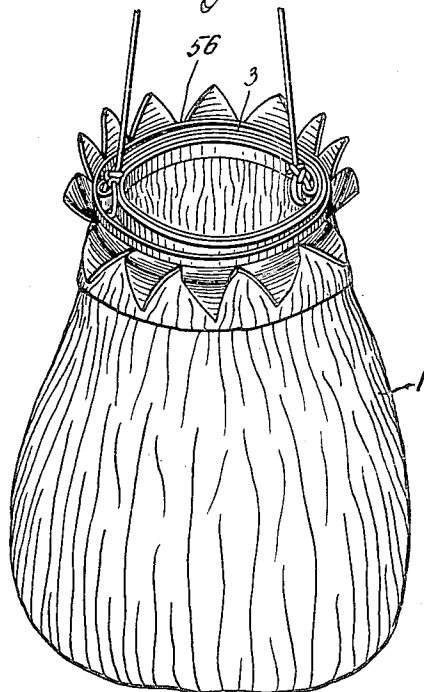


Fig. 17.

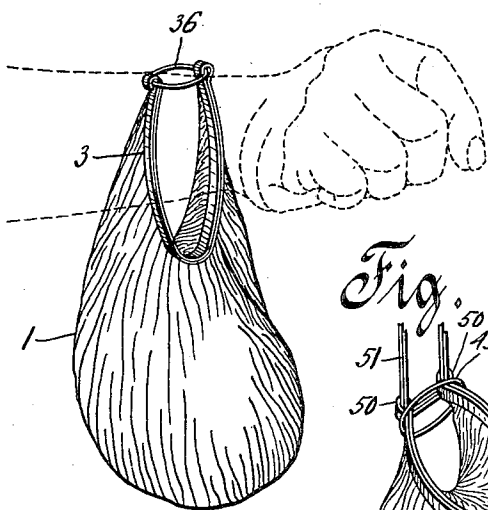


Fig. 18.

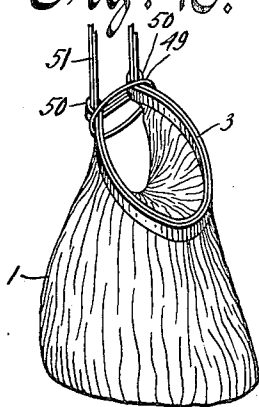
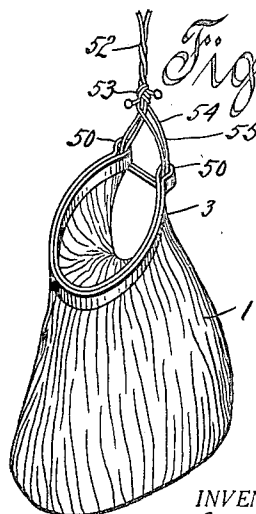


Fig. 19.



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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent.

Patented Apr. 27, 1920.

Application filed September 20, 1917. Serial No. 192,358.

To all whom it may concern:

Be it known that I, JOSEPH KLEIDMAN, a citizen of Russia, and a resident of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bags, of which the following is a specification.

The present invention relates to receptacles, such as hand-bags, bags, sacks, etc., which are usually made of cloth, leather, rubber or equivalent materials.

One of the objects of the invention is to provide a bag closure which is simple in construction, efficient in operation, and which can be manufactured on a commercial scale, or, in other words, one which is not so difficult to produce as to be beyond a reasonable cost of such an article.

Another object of the invention is to devise a bag closure which can be conveniently mounted upon the bag, and by which the bag is closed by a simple manipulation, the opening being automatic when the fastener of the closure is released.

With these and other objects in view, which will more fully appear as the nature of the invention is better understood, the same consists in the combination, arrangement, and construction of parts hereinafter described, pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that many changes may be made in the size and proportion of the several parts and details of construction within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

A few of the many possible embodiments of the invention are illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of a bag constructed in accordance with the present invention; Fig. 2 is a top plan view of the same, on a larger scale; Fig. 3 is a front elevation thereof; Fig. 4 is a section taken on line 4—4 of Fig. 2; Fig. 5 is a top plan view of the bag, showing the bag mouth open; Fig. 6 is a perspective view of the bag closure; Fig. 7 is a perspective view showing the closure applied to a sack; Fig. 8 is a perspective view of a modified bag closure; Fig. 9 is a top plan view of another modification of the closure; Fig. 10 is a

front elevation of the device shown in Fig. 9; Fig. 11 is a top plan view of a further modification of the closure; Fig. 12 is a top plan view of a still further modification of the closure; Figs. 13 to 16, inclusive, are sections taken through several modifications of bag closures constructed in accordance with this invention; and Figs. 17 to 20, inclusive, are perspective views of bags provided with modified closures and fasteners in accordance with the invention.

Broadly speaking, the invention consists of a bag closure, in which a spring of substantially elliptical configuration is secured to the bag mouth, the bag being closed by bringing the two halves of the spring together side by side in bending the same into a curve, resembling that of the arc of a circle, the ends being held together by suitable fastening means, which, when disengaged from one of the ends of the closure, permits of an automatic opening of the bag mouth.

Referring now first to Figs. 1 to 6, inclusive, the numeral 1 indicates the body portion of the bag, which is wholly flexible and may be made of cloth, leather, rubber or equivalent materials. To the mouth 2 of this bag is fastened a closure in the form of a spring 3, that is of substantially oblong or elliptical configuration. This spring is made of a flat strip 4 of one integral piece. It comprises, generally speaking, two sections 5 and 6, which are united by an eye-like bend 7. The ends 8 and 9 of the strip abut against each other, the end 9 being substantially semicircular and holding the end 8 in position. The section 5 is more curved than the section 6, or in other words the section 5 is longer than the section 6. This spring may be attached to the bag body 1, as appears from Fig. 13, by extending the bag material around its mouth over the said spring inwardly, and securing the abutting portions 10 and 11 of the material together by one or more lines of stitches 12.

The fastening means of the closure consists, in the case illustrated in Figs. 1 to 6 inclusive of the drawings, of a wire piece 13, that is drawn through the bend 7 on one of the ends of the elliptical spring and provided with a hook-shaped bend 14, that is adapted to engage the semicircular end 9 on the other end of the elliptical spring.

The length of the fastening means of the closure is considerably shorter than the normal distance between the bends 7 and 9 thereof.

5 Through the fastening means 13 is drawn an endless cord 15, forming the handle of the bag.

The operation of this device is as follows: When the spring 4 is in its normal, expanded form (Figs. 5 and 6), the bag mouth is open. In order to close the bag, the closure is taken hold of at its bends 7 and 9 and the said bends forced toward each other. In this manner the two halves of the spring are brought together side by side into parallel positions, thereby closing the bag. The spring is in this manner bent substantially into the form of an arc of a circle (Figs. 1 to 3, inclusive). The fastener 13 is then brought into engagement with the bend 9 of the spring, the said fastener being forced between the ends 8 and 9, until the resilient end 8 springs back toward the end 9, thereby holding the fastener in engagement with the spring.

In order to open the bag, the end 8 of the spring is forced toward the section 6 thereof, to permit the fastener to be disengaged from the bend 9. After this disengagement, the spring resumes automatically its expanded position, in which the bag mouth is open.

The invention is applicable to sacks or ordinary bags, as appears from Fig. 7 of the drawings. In this case the bag closure is made in the form of an elliptical spring 3', which is endless. On both ends of the major axis of the spring there are formed eyes 16, through which may be drawn, when the bag is closed, a wire piece 17, the ends of which are tied into a knot 18. To prevent unauthorized persons from opening the bag, a lead seal 19 of any suitable construction may be combined with the wire piece 17.

45 Instead of making the spring of one integral piece, the same may consist of two sections 20 and 21 (Fig. 8). The abutting ends 22 and 23 of the sections 20 and 21, respectively, may be united in any suitable manner, for instance they may be placed into the recess 24 of an eye 25 and secured thereto by means of rivets 26. The ends 27 and 28 of the spring sections may be united in a similar manner. The eye 29, uniting the last named two ends, is, preferably, provided with a spring 30, to permit of an insertion of the closure fastening means into the said eye.

The spring shown in Fig. 8 of the drawings is provided with corrugations, of which those on one section fit into those on the other section, thereby securing a proper closure of the bag.

65 Instead of making the spring of a flat strip, as shown in Figs. 6, 7 and 8, it may

be made of spring wire, as appears from Figs. 9 and 10 of the drawings. In this instance, the spring is made of one integral strand of wire, denoted by the numeral 31. The section 32 comprises two parallel portions 33 and 34 (Figs. 10 and 16), and the section 35 a single portion, that is adapted to lie between the portions 33 and 34, when the bag is closed (Fig. 16). The closure fastening means is made in this case in the form of a ring 36, which is drawn through an eye 37 on one end of the elliptical spring, and is adapted to engage a hook 38 on the other end of the said spring. It is obvious that this ring may be used in constructions hereinbefore described, instead of the fastening means referred to above.

If the bag is of considerable width, it may be impossible to use a spring wire. In such a case, the construction shown in Fig. 11 of the drawings may be made use of, in which, instead of an ordinary spring wire, one is used in the form of a spring coil 39. Otherwise the construction may be the same as the one shown in Figs. 9 and 10 of the drawings.

In Fig. 12 of the drawings another modification of the invention is illustrated. In this case the two sections 5 and 6 of the spring are fastened to blocks 40 and 41. To the block 40 is attached a closure fastening means 42, preferably a metallic strip, the free end of which is hook-shaped, as shown at 43. This hook-shaped end is adapted to be seated in a recess 44 in the block 41. Otherwise the operation of this device is the same as of those above described.

The spring of the closure may consist of two flat sections, as for instance those illustrated in Figs. 1 to 7 inclusive, and Fig. 12, or one section of the spring, denoted in Fig. 14 of the drawings by the numeral 45, may be provided with a concave inner surface, while the section 46 may have a convex inner surface. In the modification shown in Fig. 15, the section 47 is also provided with a concave inner surface, and the section 48 of the spring is made in the form of a wire, having a circular cross-section. The modified springs shown in Figs. 14 and 15 have a better gripping effect on the bag material than the one shown in Fig. 13 of the drawings.

The construction disclosed by Fig. 17 of the drawings differs from the one shown in Fig. 1 in that the spring 3 is of greater length, and the fastening means consists of a ring 36. The device shown in Fig. 1 of the drawings necessitates a handle 15, by which to carry the bag, while in the device shown in Fig. 17 the hand may be slipped through the closures and carried on the arm without a special handle.

The bag shown in Fig. 18 of the drawings

ings differs from those heretofore described in that the closure fastening means is made in the form of a ring 49, that is disconnected from the closure and drawn over the eye-shaped ends 50 thereof, when the latter are brought into positions to close the bag. Through the eye-shaped ends of the spring extends a cord or similar means 51, forming the handle of the bag.

The modification shown in Fig. 19 differs from the one described in connection with Fig. 18 in that the ring 49 is lacking and a cord 52, forming the handle, constitutes at the same time a closure fastening mechanism. This cord is drawn through the eye-shaped ends 50 of the closure and provided with a knot 53 near its lower end. This knot stops the free end 54 of the cord from sliding upward and enlarging the loop 55, into which the lower end of the cord is formed. If the free end 54 of the cord is disengaged from the knot and the loop enlarged, the bag opens automatically.

In the device illustrated in Fig. 20 of the drawings, the closure fastening means is made in the form of a ring 56, which embraces the closure, after the latter has been brought to its closing position, in which the said closure is wound up like a spiral.

The operation of this device needs no further explanation.

What I claim is:

1. In a combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending the same into a curve resembling an arc of a circle, and fastening means for holding together the ends of the spring so bent.

2. In combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, one half of said spring being longer than the other half thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending the same into a curve resembling an arc of a circle, and fastening means for holding together the ends of the spring so bent.

3. In combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in forcing the ends of said halves closer to each other, and fastening means for holding together the ends of the spring so forced together.

4. In a combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending

the same into a curve resembling an arc of a circle, fastening means for holding together the ends of the spring so bent, and a handle attached to said fastening means.

5. In combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring into parallel relation in bending the same into a curve resembling an arc of a circle, fastening means for holding together the ends of the spring so bent, and a handle attached to said fastening means.

6. In a combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending the same into a curve resembling an arc of a circle, and fastening means for holding together the ends of the spring so bent, said fastening means being attached to said spring.

7. In a combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending the same into a curve resembling an arc of a circle, and fastening means for holding together the ends of the spring so bent, said fastening means being fixed to one end of said spring and detachable from the other end thereof.

8. In combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, one half of said spring being longer than the other half thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending the same into a curve resembling an arc of a circle, and fastening means for holding together the ends of the spring so bent, said fastening means being fixed to one end of said spring and detachable from the other end thereof.

9. In combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in forcing the ends of said halves closer to each other, and fastening means for holding together the ends of the spring so forced together, said fastening means being fixed to one end of said spring and detachable from the other end thereof.

10. In a combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring together side by side in bending the same into a curve resembling an arc of a circle, fastening means for holding together the ends of the spring so bent, said

fastening means being fixed to one end of said spring and detachable from the other end thereof, and a handle attached to said fastening means.

- 5 11. In combination, a bag, a spring of substantially elliptical configuration secured to the mouth thereof, said bag being adapted to be closed by bringing the two halves of said spring into parallel relation in bending the
10 same into a curve resembling an arc of a circle, fastening means for holding together the ends of the spring so bent, said fastening means being fixed to one end of said spring and detachable from the other end
15 thereof, and a handle attached to said fastening means.

12. In combination, a bag, a spring secured to the mouth thereof, said spring being of substantially elliptical configuration

and comprising two sections which are 20 united by an eye-like bend, the ends of said spring opposite said bend abutting against each other and one end being substantially semi-circular and holding the other end in position, said bag being adapted to be closed 25 by bringing the two sections of said spring together side by side in bending the same into a curve resembling an arc of a circle, and fastening means extending through the eye-like bend of said spring and adapted to 30 be engaged with the semi-circular end of said spring for keeping the spring in bent position.

Signed at New York, in the county of New York and State of New York, this 19th 35 day of Sept., A. D. 1917.

JOSEPH KLEIDMAN.