

Dec. 9, 1930.

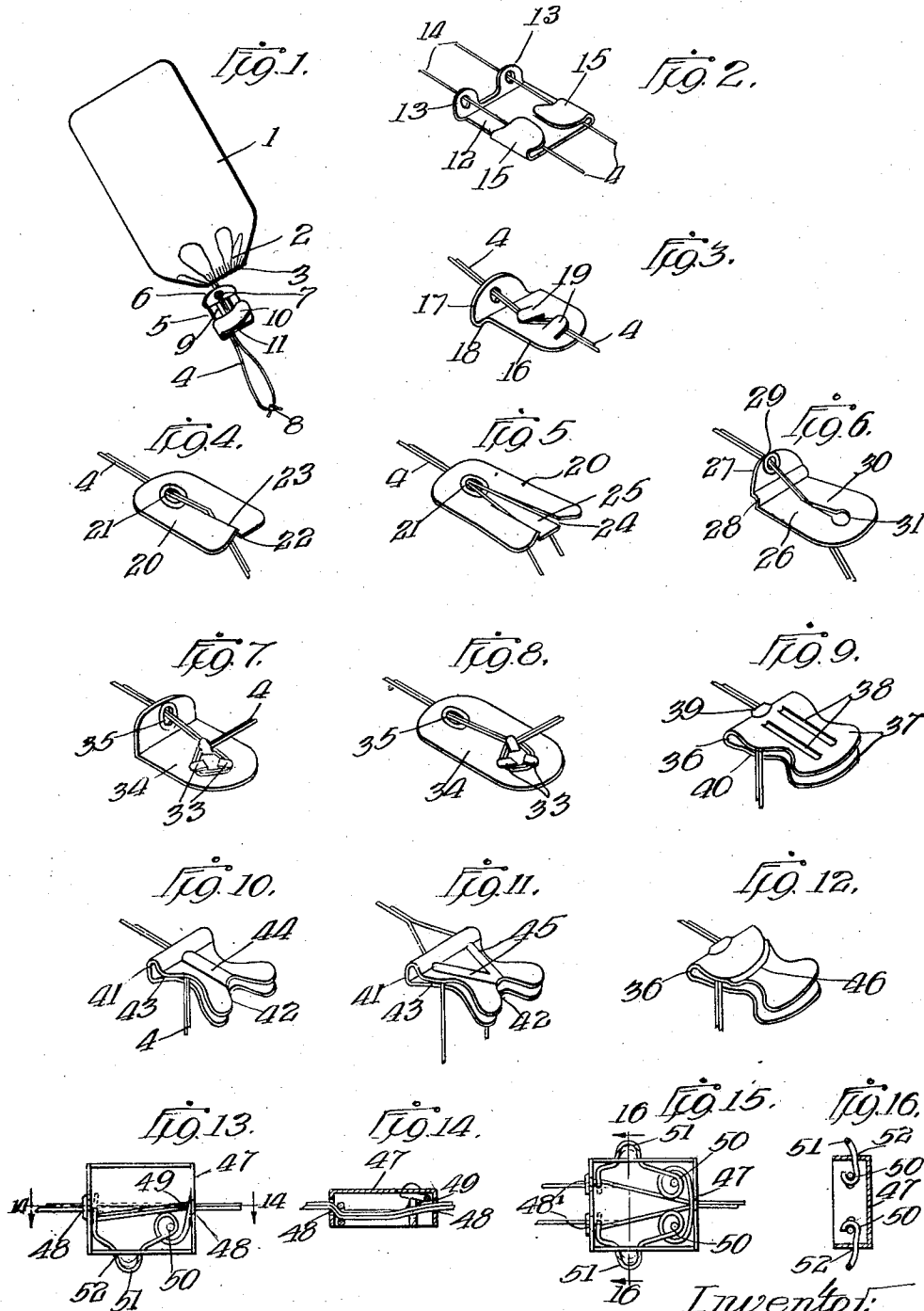
J. T. H. PATERSON

1,784,679

CORD TIE

Filed March 5, 1929

2 Sheets-Sheet 1



Inventor:
John T. H. Paterson

By J. Edwin Burch, Atty.

Dec. 9, 1930.

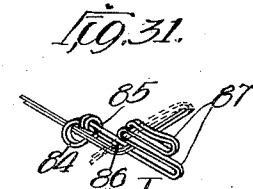
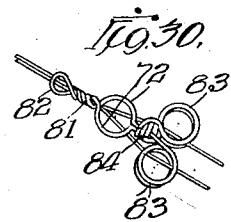
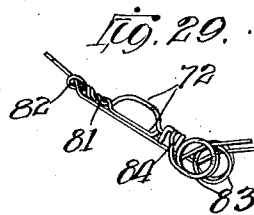
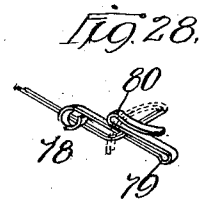
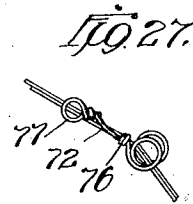
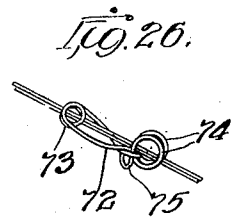
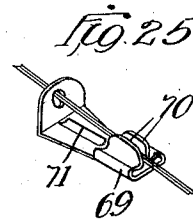
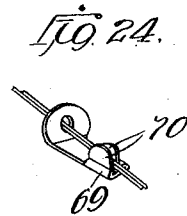
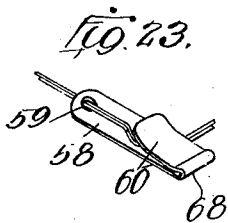
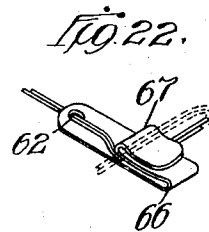
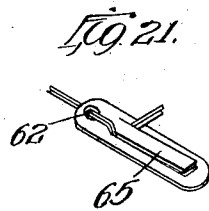
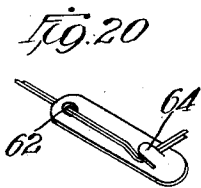
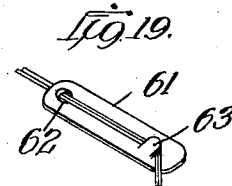
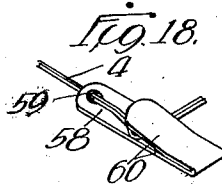
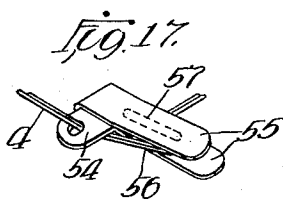
J. T. H. PATERSON

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CORD TIE

Filed March 5, 1929

2 Sheets-Sheet 2



Inventor:
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UNITED STATES PATENT OFFICE

JOHN T. H. PATERSON, OF CHICAGO, ILLINOIS

CORD TIE

Application filed March 5, 1929. Serial No. 344,298.

This invention relates to bag closures or cord ties for tobacco bags, pouches, sacks and the like and the object thereof is to provide a simple frictional cord grip of this character 5 which can be cheaply and economically produced in quantities from sheet metal or wire, although it may be used for various purposes where ends of cord, lacing or the like are adapted to be anchored, particularly in connection with bags, sacks, tobacco bags and the like. 10

With the above and other objects in view, the invention consists in certain novel combinations and arrangements of parts to be hereinafter described. 15

In the accompanying drawings:

Figure 1 is a perspective view of a bag or sack having one form of fastener or a tie for the closure thereof in applied position. 20

Figures 2 to 12 inclusive are perspective views in modified forms.

Figure 13 is a plan view of another form.

Figure 14 is a sectional view taken on the section line 14—14 of Figure 13.

Figure 15 is a plan view of another form. 25

Figure 16 is a sectional view taken on the section line 16—16 of Figure 15.

Figures 17 to 25 inclusive are perspective views of other forms produced of sheet metal or other suitable sheet material of proper flexibility or tensional stiffness and 30

Figures 26 to 31 inclusive are further perspective views of devices made of wire.

Referring to the drawings in detail, and more particularly to Figure 1, 1 designates a tobacco bag of cloth, a tobacco pouch, or other bag having a mouth portion 2 with a hem 3 adapted to receive a draw string or cord 4 preferably in the form of a loop with 40 no free ends so as to form the bag or sack closure. Ordinarily, it is common to have two ends or loop portions which are adapted to be tied together and which require the use of both hands. The present fastener or tie is designed to eliminate one of these ends so that the device can be handled with one hand if desired. 45

As shown in Figure 1, the fastener comprises a section of sheet metal or the like, that is some material of similar flexibility and 50

tensional stiffness indicated at 5 having one end turned up at right angles or substantially so as indicated at 6 and provided with an opening or aperture 7 through which the loop end 4 of the tie extends so that the fastener may ride thereon without displacement owing to the knot 8 provided on the tie. This strip or plate 5 is provided with a longitudinal stiffening bead or rib 9 and one end has a lateral extension 10 which is bent over in the form of a tongue over the plate portion 5 and in divergent relation thereto beyond the contacting portion 11 so as to provide a frictional gripping means into which the loop of the draw string may be passed to anchor the same when the mouth of the bag or bag closure is drawn closed. This tongue as it will be noted is an extension on one side and is bent transversely of the plate or strip 5. 55

In Figure 2 the plate 12 is provided with two apertured portions 13 at the angularly bent ends each aperture individually receiving one of the cord portions 14 and the opposite edges being provided with tongues 15 extending laterally outwardly and then bent inwardly in the same manner as the tongue 10 to provide frictional gripping members for the respective cords. 60

In Figure 3 the plate 16 has a right angular bent end 17 preferably stiffened by the re-bent ogee portion 18 and a corresponding aperture receiving the cord 4 as previously described. Oppositely extending tongues 19 are stamped from the plate 16 to frictionally receive and clamp or hold the string 4 therebeneath. 65

In Figure 4 the plate 20 is provided with an opening 21 receiving the cord 4 and a longitudinal slot 22 from the opening or adjacent the opening to the free end thereof, one side of which is bent up at an angle as indicated at 23 so as to frictionally receive and hold the cord in the slots thus produced. 70

In Figure 5 the plate is of similar construction as shown in Figure 4 except that two slots 24 are provided forming an intermediate tongue 25, the opposite side portions being bent up so that the cords may be spread and extended through the respective gripping slots. These slots are preferably wide. 75 80 85 90 95 100

ened toward their free ends to permit convenient insertion of the cords for frictional gripping.

In Figure 6 the plate 26 has a bent end 27 formed with a stiffening bead or rib 28 and an opening 29 receiving the cord therethrough and the plate portion is provided with a tapering slot 30 receiving the cord through the medium of an enlarged opening 31 at the free end of the slot so that the cord will be anchored in the narrowing portion thereof.

In Figure 7 the plate is of the same form except that it is provided with a plurality of attached or stamped out tongues 33 preferably three in number beneath which the cord is wound for anchoring in addition to the frictional gripping beneath the resilient tongues thus formed as in the previous described construction.

In Figure 8 the device is the same as shown in Figure 7 except that the bent end is omitted and the plate 34 is made flat with the opening 35 in one end at the gripping portion or tongues 33 at the other.

In Figure 9 of the drawing the device comprises a strip bent intermediately upon itself as indicated at 36, the opposite bent portions or jaws 37 being preferably stiffened by beads or ribs 38 preferably two in number on each or both sides and the bent portion having an opening 39 receiving the cord therethrough which is gripped at the contacting intermediate portions 40 of the portions 37 or by engagement between the said portions at the ribs or beads 38, except where said beads or ribs are projected outwardly. The ribs are shown two in number spaced apart in parallel relation in this form.

In Figure 10 of the drawings the device is practically the same as shown in Figure 9 except that the rebent portion 41 is expanded outwardly on each side and the free ends of the portions that are rebent, that is, at the ends are preferably bifurcated as indicated at 42 to provide wings while the cord is held beneath the contacting portions 43 adjacent the rebent ends and one or both sides are stiffened by beads or ribs 44 running longitudinally and centrally of the same.

In the form shown in Figure 11, the device is the same as shown in Figure 10 except that the stiffening ribs or beads are made in the form of a V converging toward the free ends as indicated at 45.

In Figure 12 of the drawings the device is of the same construction identically as shown in Figure 9 except that the ribs or beads are curved outwardly in convex formation as indicated at 46 from the rebent ends 36 so as to frictionally grip the cord.

In Figures 13 and 14 of the drawings a shallow, sheet metal box-like affair 47 is employed having openings 48 in its opposite ends through which the cords extend. A

wire member 49 is anchored in one end and has a spring coil 70 from which the wire is bent to provide a thumb engaging and depressing member 51 which extends through a slot 52 at one side of the box while the free end is bent inwardly along the adjacent side and has a loop 53 receiving the cord therethrough so that the same will be held by the loop normally springing outwardly under the tension of the coil spring at the opposite end, thereby gripping the cord, but releasing the same on being pressed inwardly at 51 to dispose the loop 53 in registry with the opening 43 adjacent thereto.

In the forms shown in Figures 15 and 16, the construction is practically identical with the forms shown in Figures 13 and 14 except that the gripping members are duplicated at opposite sides and a pair of openings 48' are provided for receiving the spaced cords. The gripping jaws are formed in one continuous piece of wire mounted within the box-like structure and the opposite portion 51 may be simultaneously or independently depressed or pressed in to aline the loops 53 with the opening 48 to permit the cord to be passed through or the tie to be moved along the cord to fasten the closure.

In Figure 17 of the drawing the device comprises a rebent strip having an apertured tongue 54 projecting from one side to receive the cord or loop of the draw string or the like and the side portions 55 may be made of the same length or one longer than the other and brought together in clamping relation as shown in 56 to frictionally grip the cords passing between the sides or tongues after passing through the opening of the apertured extension or ear 54. Furthermore, a stiffening and gripping rib 57 may be provided on either side of one or both of these tongues or side portions of the rebent strip to assist in the gripping.

In Figure 18 one end of the strip is considerably longer than the other as indicated at 58 and apertured at 59 to receive the cord. The gripping portions or tongues 60 therefore are designed to frictionally clamp and hold the cord therebetween, the short tongue being bent from the opposite end from that provided with the aperture 59.

In Figure 19 of the drawings a plate or strip 61 has an opening 62 at one end receiving the cord and a stamped out tongue 63 near the opposite end beneath which the cord is gripped. This tongue is bent slightly in angular or divergent relation with respect to the plane of the plate to grip the cord.

In Figure 20 the device is the same as shown in Figure 19 except that the tongue 64 is stamped out in the opposite direction instead of toward the free end or transversely. The transverse tongue is shown in Figure 19 at 63 and in Figure 21 the tongue 65 is

longer and extends longitudinally toward the free end opposite the opening 62.

In Figure 22 the device is of similar construction except that the tongue shown in Figure 18 is rebent twice as indicated at 66 and 67, the cord being passed beneath one or both of said tongues and gripped between the contacting portions of the rebent resilient or flexible clamping jaw thus provided.

In Figure 23 the device is of the same construction as shown in Figure 18 except that the rebent portion 68 is enlarged outwardly to substantially form a stiffening member for the rebent end to increase the strength or friction of the grip.

In Figure 24 the device is the same as shown in Figure 1 except that the stiffening rib or bead 9 is omitted and the free end of the strip or plate is provided with oppositely bent portions 69 which are then bent inwardly and upwardly to form gripping tongues 70 located centrally to receive the cord and grip the same.

The construction shown in Figure 25 is the same as shown in Figure 24 except that the plate or strip is provided with a longitudinal stiffening rib or bead 71 and the rebent portions 69 are extended in further before forming the gripping tongues or jaws 70 which are bent upwardly and outwardly slightly in divergent relation. The gripping effect takes place between the contacting or closely adjacent portions where the jaws 70 are bent up from the rebent portions 69.

In Figure 26 a device is shown made of wire, the intermediate portion of which is bent from wire 72 to form coil 73, the end of the wire 72 being so formed at one end and provided with a pair of loops 74 and the free end is connected or anchored in cylinder 75 by twisting the same together, so that the cord is held between the gripping loops or jaws 74 preferably disposed perpendicularly or at right angles to the coil 73.

In Figure 27 the construction is the same as shown in Figure 26 except that one end is anchored around the shank 75 as indicated at 76 and the end of the wire 72 is formed with a single coil or loop 77 adapted to receive the cord therethrough like the spring coil or eye 73, in the previously described form.

In Figure 28 the device is shown made of a flat strip or flat wire having a rebent loop 78 at one end forming an eye receiving the cord and the opposite end is rebent on itself twice in opposite directions as indicated at 79 and 80 forming gripping tongues beneath which the cords may be anchored either between one or both. This rebending corresponds to the rebending of the sheet shown in Figure 22.

In Figure 29 the intermediate portion of the wire has a twisted portion 81 formed with an eye 82 receiving the cord and the

opposite end is provided with two or three gripping loops 83 of resilient form receiving the laced cord therethrough, the other free end of the wire being anchored to the loop portions of the wire as indicated at 84 on the shank thus formed where the wires come together.

In Figure 30 the construction is the same as shown in Figure 29 except that the loops 83 are extended in opposite directions and in the same plane. In Figure 31 the two ends are bent to form eyes 84 and anchored or twisted around each other as indicated at 85, that is, one end may be coiled around the shank portion 86 thus formed and the opposite loop end is rebent in opposite direction as indicated at 87 and 88 corresponding to the bending shown in Figures 22 and 28.

It will thus be seen that I provided a cord fastener or tie which forms an effective and simple clasp for fastening a draw string of a bag or sack or ends of a lacing or the like. The device may be economically produced in quantities and effectively serve to fasten a bag or sack closure or other device of similar character.

While I have shown my invention in a preferred form, it is to be understood that various changes may be made in the construction, proportion and arrangement of the parts and also in the materials used, without departing from the spirit and scope of the invention.

What I claim is:

1. A bag or sack closure fastener, for a bag or sack having a drawstring, comprising a plate having an opening therein adapted to slidably mount the same on the drawstring and having portions bent to form wedging jaws to frictionally grip the drawstring when the bag is closed and the plate slid against the bag.

2. The combination with a bag closure and drawstring formed in a loop, of a plate having a bent portion with an aperture for receiving both portions of the drawstring to slidably mount the plate thereon, said plate having a portion bent to form a gripping member with co-acting jaws to frictionally receive and hold the drawstring therebetween, to hold the plate anchored against movement on the drawstring and the bag closed.

3. The combination with a bag closure and drawstring formed in a loop, of a plate having an aperture for receiving both portions of the drawstring to slidably mount the plate thereon, said plate having a portion bent to form a gripping member with co-acting jaws to frictionally receive and hold the drawstring therebetween, to hold the plate anchored against movement on the drawstring and the bag closed.

In testimony whereof I affix my signature.
JOHN T. H. PATERSON.