

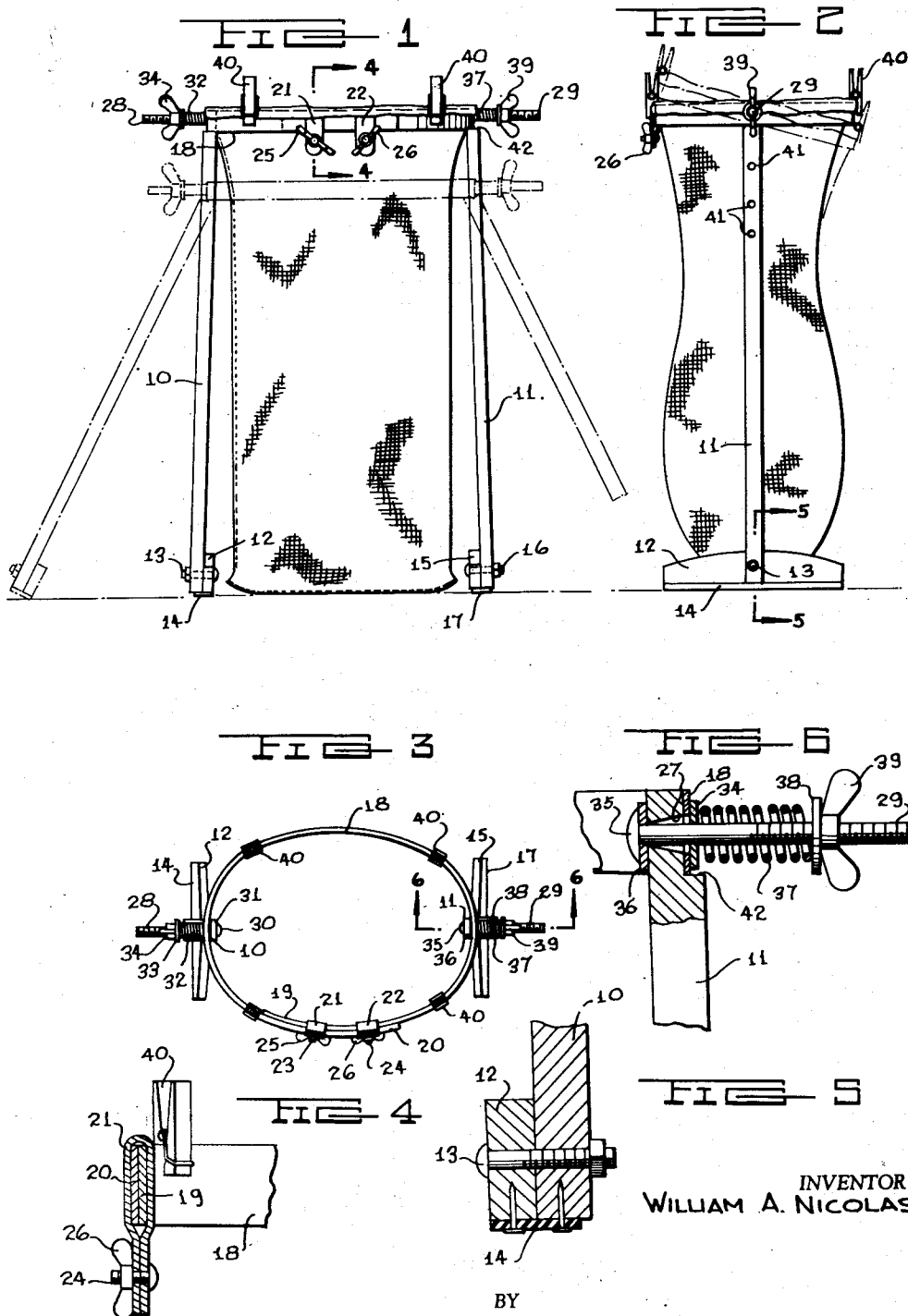
May 19, 1953

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2,639,110

BAG HOLDER

Filed April 28, 1950



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2,639,110

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Application April 28, 1950, Serial No. 158,707

2 Claims. (Cl. 248—99)

1

This invention relates to bag holders and more particularly to a holder for supporting the open end of a bag of flexible material, such as cloth, in open condition while the bag is being filled with material, such as grain.

It is among the objects of the invention to provide an improved bag holder for supporting the open ends of flexible bags in open condition, which holder is quickly and easily adjustable in height to accommodate bags of different lengths and to permit the starting of the bag filling operation at a low level to avoid unnecessary lifting and gradually raising the open end of the bag as the bag is filled, which provides for tilting the open end of the bag to facilitate filling thereof, which is easily adjustable in size to accommodate bags to different sizes, which is of light weight and easily reducible to a compact condition for transportation or storage, and which is simple and durable in construction, economical to manufacture, and easy to use.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing wherein:

Figure 1 is a front elevation of a bag holder illustrative of the invention with a bag operatively supported thereby;

Figure 2 is a side elevation of the bag and bag holder assembly illustrated in Figure 1;

Figure 3 is a top plan view of the bag holder;

Figure 4 is a cross section on an enlarged scale on the line 4—4 of Figure 1;

Figure 5 is a cross section on an enlarged scale on the line 5—5 of Figure 2; and

Figure 6 is a cross section on an enlarged scale on the line 6—6 of Figure 3.

With continued reference to the drawing, the bag holder comprises two elongated, substantially straight legs 10 and 11. A foot piece or foot 12 is secured to the leg 10 at one end of the leg by suitable means, such as the bolt 13, and extends to opposite sides of the leg substantially perpendicular to the latter. A pad 14 of antislip material, such as soft rubber, is secured to the end of the leg and to the surface of the front 12 at the corresponding end of the leg. A similar foot 15 is secured to the leg 11 at one end of the latter by a bolt 16 and an antislip pad 17 is secured to this end of the leg and to the surface of the foot adjacent the end of the leg at which the foot is attached.

A generally annular band 18 of thin walled flexible material, such as tempered steel, has overlapping end portions 19 and 20 and is of a size to

2

fit within or around the open end of a bag, such as a grain bag. U clamps 21 and 22 receive the overlapping end portions of the band 18 and are apertured at their open ends to receive clamp bolts 23 and 24 respectively. A wing nut 25 is threaded onto the bolt 23 and a similar wing nut 26 is threaded onto the bolt 24 for clamping the overlapping end portions of the band 18 together against movement relative to each other.

With this arrangement the wing nuts 25 and 26 can be loosened and the band 18 adjusted to accommodate it to bags of a selected size and then the wing nuts tightened to secure the band in the adjusted condition.

The leg 11 is provided near its end opposite the foot 15 with a tapered hole 27 and the leg 10 is provided near its end opposite the foot 12 with a similar hole, not illustrated. The band 18 is provided with bolt holes at substantially diametrically opposed locations therearound and a bolt 28 extends through one of the bolt holes in the band 18 and through the tapered hole near the end of leg 10 opposite the foot 12 while a similar bolt 29 extends through the other bolt hole in the band and through the tapered hole 27 in the leg 11.

The end of the leg 10 opposite the foot 12 is disposed at the inner side of the band 18 and the bolt 28 extends through the bolt hole in the end of the leg 30 opposite the foot 12 and through the corresponding bolt hole in the band. The bolt has a head 30 at the inner side of the leg and a washer 31 surrounds the bolt between the head 30 and the leg 10. A coiled compression spring 32 surrounds the bolt 28 at the outer side of the band 18 and bears at one end against the band. A washer 33 is placed on the bolt at the outer end of the spring 32 and a wing nut 34 is threaded onto the bolt and bears against the washer 33 to compress the spring.

The end of the leg 11 opposite the foot 15 is also disposed at the inner side of the band 18 and the bolt 29 extends through the hole 27 in this leg and through the corresponding bolt hole in the band. This bolt has a head 35 at the inner side of the leg 11 and a washer 34 surrounds the bolt adjacent the leg 11 while a washer 36 surrounds the bolt between the bolt head 35 and the leg 11. A compression spring 37 surrounds the bolt 29 at the outer side of the band 18 and bears at one end against the band. A washer 38 is placed on the bolt at the outer end of the spring 37 and a wing nut 39 is threaded onto the bolt 29 and bears against the washer 38 to compress the spring 37.

3

With this arrangement the feet 12 and 15 at the lower ends of the legs 10 and 11 may be spread apart, as indicated in broken lines in Figure 1, to lower the band 18 to accommodate the height of the band above the floor to the length of a particular sack and also to lower the band so that the bag filling operation can be begun at a low level to avoid unnecessary lifting of the material being placed in the bag. The legs 10 and 11 are held in downwardly diverging condition by the antislip pads 14 and 17 and also by tightening the nuts 34 and 39 against the springs 32 and 37 to tighten the connections between the legs and the band. The pivotal connections provided by the bolts 28 and 29 between the legs 10 and 11 and the band 18 also permit tilting of the band, as indicated in broken lines in Figure 2, to facilitate filling the bag, this tilting movement being limited by the shoulders 42 on the legs. With this arrangement the bag holder will stand up on a smooth or slippery surface or on an uneven surface such as the surface of a cultivated field.

Suitable spring clips 40 are attached to the band 18 by suitable means such as flexible strands, and are utilized to clamp the portion of the bag at the open end thereof to the band. In securing the open end of the bag to the band 18 the end portion of the bag is rolled over the band, as indicated in Figure 1, and the clips 40, such as spring closed clothespins are then applied to the band and the portion of the bag within the band and rolled over the band to firmly secure the bag to the band. These clips do not damage the bags and the rolling of the bags over the band prevents tearing or other injury to the bags.

If desired, the legs 10 and 11 may be provided with additional holes, as indicated at 41 in Figure 2, below the upper ends of the legs for attachment of the band to the legs at levels below the upper ends of the legs.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. A bag holder comprising a pair of elongated legs, a foot at one end of each leg extending to opposite sides of the legs substantially perpendicular thereto, an annular band of flexible ma-

4

terial having overlapping ends, clamp means on said band for securing the ends thereof at different positions relative to each other to adjustably vary the size of said band, means pivotally connecting said legs at the ends thereof opposite said feet to said band at spaced apart locations around said band for tilting of said band relative to said legs and movement of said feet toward and away from each other, and clips loosely attached to said band and operative to secure a bag at its open end to said band, each of said legs being disposed at its end opposite the corresponding foot within said band, and the means pivotally connecting each leg to said band comprising a bolt extending through the leg and said band, a compression spring surrounding said bolt at the outer side of the band and bearing at one end against the band, and a nut threaded into said bolt at the other end of said spring and compressing the latter.

2. A bag holder comprising a pair of elongated legs each having a foot at one end extending to opposite sides thereof and having a tapered aperture extending therethrough at its other end, an annular band of flexible material having overlapping ends and spaced apart apertures therein, clamp means on said band securing the ends thereof together at selected positions of adjustment relative to each other to adjustably vary the size of said band, each of said legs having the aperture therein in registry with a corresponding aperture in said band with the smaller ends of the tapered leg apertures adjacent the band, bolts extending one through each leg aperture and through the corresponding aperture in said band, a coil compression spring surrounding each bolt at the outer side of said band, nuts threaded one onto each bolt compressing the corresponding springs, said tapered leg apertures and said springs providing limited freedom of angular movement of said legs relative to said band, and clips loosely attached to said band at spaced apart intervals therearound and operative to secure a bag at its open end to said band to depend from said band between said legs.

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