Feb. 2, 1960 A. E. F. JOHNSON 2,923,513

SUPPORT STAND

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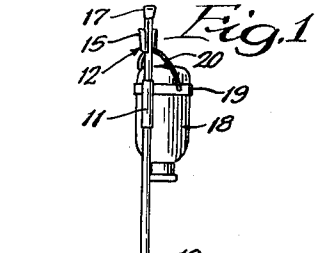


Fig. 1

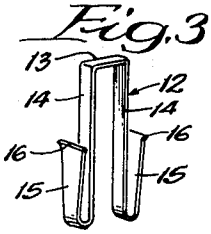


Fig. 3

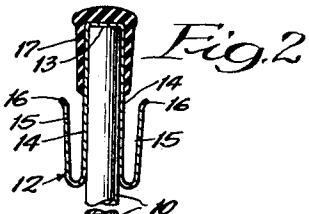


Fig. 2

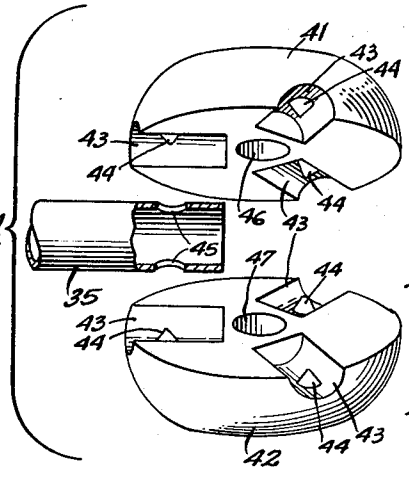
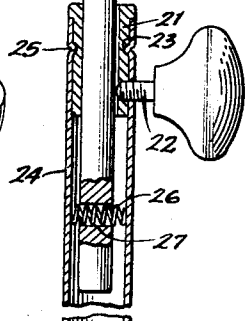
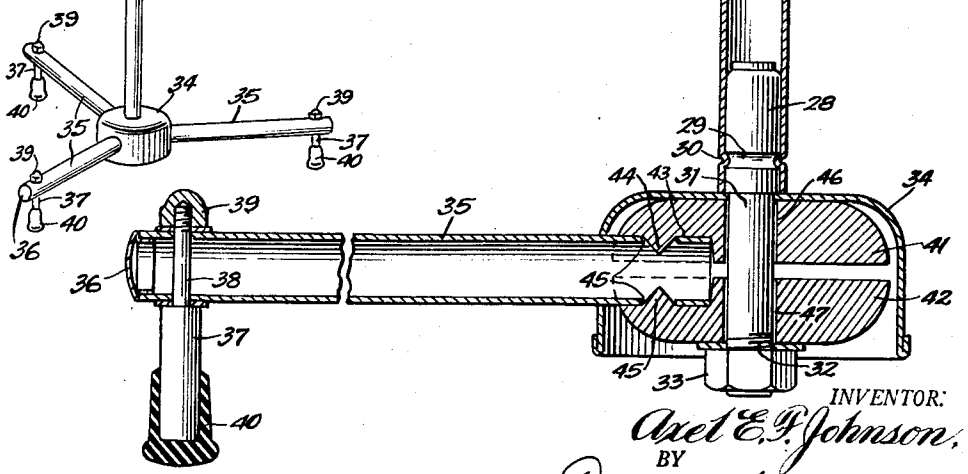


Fig. 4





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2,923,513

SUPPORT STAND

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2 Claims. (Cl. 248—194)

This invention relates to a support stand, and the invention is particularly useful as a stand support for the bails of bottles or other containers, etc,

An object of the invention is to provide a support structure which engages the bails of bottles so as to support the bottles firmly in position while providing adjustable resilient means for frictionally engaging and holding the bottles against movement. A further object is to provide, in an extensible telescoping stand structure, means whereby the extensible portions are firmly held in position while at the same time supporting a hook member held in position by a resilient locking means. A still further object is to provide in such a stand structure a weight device within the base which is effective in clamping the supporting legs in position and providing quick assembly means for uniting the base and leg structures. Yet a further object is to provide a novel form of bail-supporting stand of extremely great stability, while affording a sound-dampening and stabilizing support for a plurality of bottles or containers equipped with bails and for preventing breakage of the bottles, etc. Other specific objects and advantages will appear as the specification proceeds.

The invention is shown, in an illustrative embodiment, by the accompanying drawing, in which:

Figure 1 is a perspective view of a stand embodying my invention; Fig. 2, an enlarged vertical sectional view; Fig. 3, a perspective view of the bail hook member employed; and Fig. 4, a broken perspective view of the base and leg assembly, the several parts being shown in spaced-apart relation.

In the illustration given, **10** designates a rod or top extensible member, and slidably mounted thereon is a sleeve **11** formed of rubber or other resilient material. Upon the rod **10** rests an inverted U-shaped hook member **12** having a central web portion **13** adapted to rest upon the top of the rod **10** and having depending spring legs **14** engaging the sides of the rod **10**, the legs being turned sharply upwardly at their bottoms to provide hook lips **15**. The hook lips **15** preferably widen laterally as they extend upwardly to provide flared top rims **16**, as shown best in Fig. 3. The inverted U-shaped member **12** is secured in the position shown in Fig. 2 by a resilient locking member or cap **17**. The resilient member **17** provides a cushion against which the bails bear as they are drawn into the hooks **15** therebelow, while at the same time anchoring the hook member **12** against lateral movement and dampening the sound as the bails are moved into position. In the specific illustration given, a bottle **18** is shown equipped with a bail band **19** and a bail **20** engages the hook **15**. The slidable sleeve **11** is adjusted along the length of the rod **10** so as to engage the bottle and hold it firmly and tightly in position. With the structure shown, in which the hook portions **15** of the member **12** lie close to the rod **10**, the weight of the bottle presses it firmly against the resilient sleeve **11**, with the result that the sleeve grips the bottle and anchors it against sidewise tilting, etc.

The rod **10** extends downwardly into a centrally-

apertured fitting member **21** threadedly recessed to receive a wing screw **22**. The fitting **21** is provided with an annular groove **23**, and a tubular member **24** telescopically receives the member **23** and the metal of the member **24** is crimped or rolled into the groove **23**, as indicated at **25**, to form a rigid interlock. The tube **24** is apertured to receive the wing screw **22**. For further steadying and anchoring the rod **10** within the tubular member **24**, a compression spring **26** may be extended through a transverse opening **27** in the rod **10**.

A second fitting **28** is inserted within the lower end of the tubular member **24** and is also provided with an annular groove **29** into which the metal of the tube **24** is rolled or crimped to form an interlock at **30**. The fitting **28** is provided with an extension **31** having at its lower end a threaded portion **32** adapted to be engaged by a nut **33**. A base cup **34** is apertured on three sides to receive the base legs **35** which are provided at their outer ends with caps **36** and with feet **37**. The feet **37** are provided with screw extensions **38** adapted to be engaged at their upper ends with nuts **39**, and the bases of the legs **37** are enclosed within resilient caps **40**.

In order to weight the base and at the same time provide means for securing the legs **35** in position, I provide two complementary cast iron members **41** and **42**, each having therein three semi-circular recesses **43** and with knobs or projections **44** extending into each recess and adapted to engage pre-drilled holes **45** in the legs **35**. The members **41** and **42** are provided with central openings **46** and **47**, respectively, for receiving the extension **31** of the fitting **28**.

Operation

In the operation of the structure, the stand is assembled by bringing the extensible members **10** and **24** into the relation shown best in Fig. 2. The legs **35** are assembled within the casting members **41** and **42** with the recesses **45** receiving the projections **44** of the two castings, and the entire base members, including the cup **34**, castings **41** and **42**, and the three legs **35** are secured in place by the single nut **33**, as illustrated best in Fig. 2. The rod **10** is extended to the desired height and clamped in position by the wing screw **22**. One or two bottles may then be supported upon the hooks **15** by bringing the bails against the resilient member **17** and downwardly into the hook recesses, with the result that the bails are thus held close to the rod **10** and the weight of each bottle bears firmly against the resilient sleeve **11**, whereby the bottles are anchored against lateral movement. The sleeve **11** is adjustable to bring it into engagement with the portion of the bottle which swings closest to the rod **10**, and the sleeve dampens the noise brought about during the positioning of the bottle or the adjusting of the same during administration of the parenteral liquids or other liquids thereon, and further prevents breakage of bottles by striking the metal standard.

Any suitable material may be employed in the manufacture of the stand. The rod may be formed of stainless steel and the tubing may also be stainless steel clad tubing and the base cover **34** for the cast iron plates **41** and **42** may similarly be formed of stainless steel. It will be understood that any form of metal, plastic, or other suitable material may be utilized in the forming of the stand structure.

While, in the foregoing specification, I have set forth a specific structure in considerable detail for the purpose of illustrating the invention, it will be understood that such details of structure may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. A support stand, comprising a pair of complementary base plates having aligned vertical and central open-

ings therethrough and having a plurality of outwardly extending and uniformly spaced apertures, each of said apertures being defined by complementary recesses extending outwardly along the opposing surfaces of each of said plates between the central opening and the periphery thereof, a plurality of outwardly extending legs having their inner end portions received within the apertures of said base plates, said end portions of said legs having upper and lower surfaces seated within the complementary recesses of said plates and having vertical cross-sectional dimensions greater than the combined vertical dimensions of each pair of said complementary recesses, whereby, when said inner end portions of said legs are disposed within said apertures the opposing surfaces of said base plates are spaced vertically apart, vertical projections provided by at least one of said plates within the recesses thereof, said projections being shorter than the vertical cross-sectional dimensions of said legs, vertical openings provided by said legs for receiving said projections, and a threaded fitting extending through the aligned vertical openings of said base plates and securing the same together in clamping relation to the inner end portions of said legs.

2. A support stand, comprising a pair of base plates having opposing horizontal surfaces and having aligned central openings therethrough, said base plates together providing a plurality of radial apertures defined by complementary recesses extending radially along the opposing horizontal surfaces thereof, a plurality of radially extending legs having their inner end portions removably received within the apertures defined by both of said plates, the vertical cross-sectional dimensions of each of said inner end portions of said legs being greater than the combined vertical dimensions of each pair of said complementary recesses, whereby, when said leg inner end portions are disposed within said apertures the opposing surfaces of said base plates are spaced vertically apart, a threaded fitting extending vertically through the central openings of said plates and securing the same together in clamping relation to the inner end portions of said radial legs, at least one of said plates being provided with vertical projections in the recesses thereof, said projections being shorter than the vertical cross-sectional dimensions of said legs, and vertical openings provided by said legs for receiving said projections when said plates are clamped upon said legs, thereby locking said legs against rotation and outward movement with reference to said plates.

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