

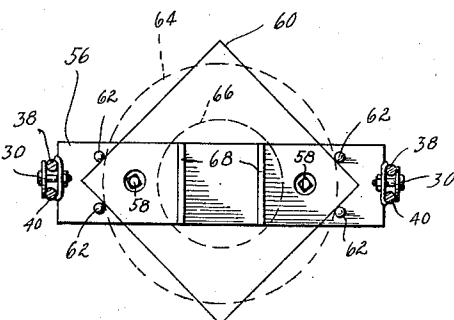
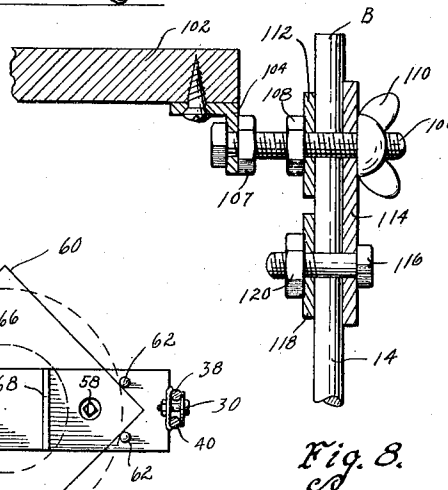
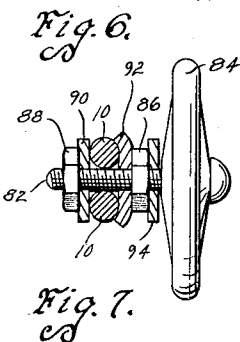
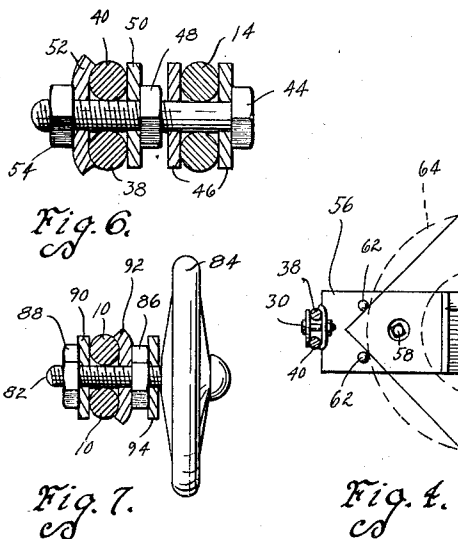
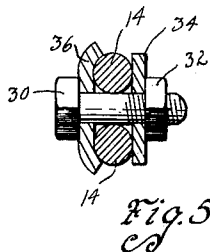
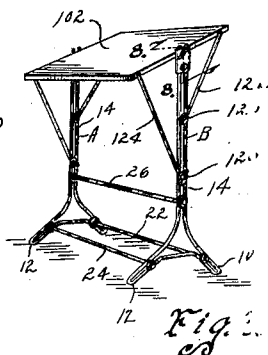
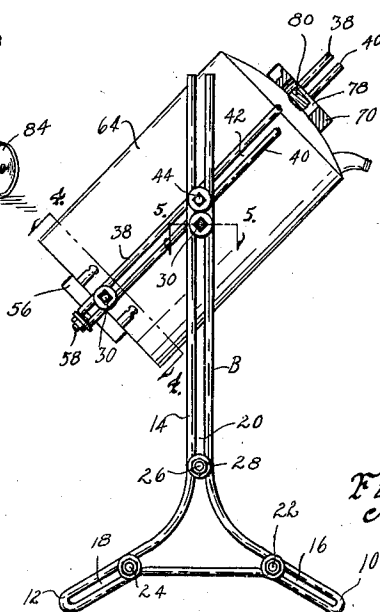
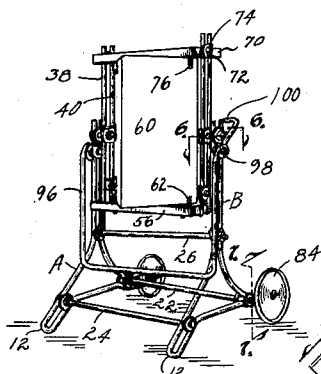
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A. T. SMITH

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HOLDER AND STAND

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Witness
H. S. Munzenmaier

Inventor
Augustus T. Smith
by Bair, Freeman & Sinclair
Attorneys

UNITED STATES PATENT OFFICE

AUGUSTUS T. SMITH, OF ST. JOSEPH, MISSOURI

HOLDER AND STAND

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The object of this invention is to provide an improved construction for a support and holder for objects which may be tiltably and adjustably mounted therein.

5 More specifically the object of this invention is to provide an improved holder and stand which may be employed for tiltably supporting a container in such manner as to facilitate the act of pouring the contents 10 from such container and which may also be employed for other purposes and adjustably supporting various objects.

Still another object of the invention is to provide a holder and stand which is conveniently fabricated principally from metal 15 rods and which is durable and economical to manufacture, and furthermore is especially advantageous in the matter of procuring different adjustments of various objects selectively supported thereby.

With these and other objects in view my invention consists in the construction, arrangement and combination of the various 20 parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

30 Figure 1 is a perspective view illustrating my improved holder and stand as employed for supporting a rectangular container, the device in this instance being equipped with a pair of ground wheels and with a pivoted handle.

35 Figure 2 is a side elevation partly in section and on an enlarged scale illustrating the device without the wheels and the handle.

40 Figure 3 is a perspective view illustrating a stand or drawing table construction by the use of my improved device.

Figure 4 is a horizontal section on the line 4-4 of Figure 2 illustrating how the base member of the tilting portion may be employed for supporting either a rectangular 45 or a cylindrical container.

50 Figure 5 is a detail section on the line 5-5 of Figure 2, illustrating a means for rigidly clamping two spaced parallel members constituting the uprights of the stationary part of the support.

Figure 6 is a detail section on the line 6-6 of Figure 1 illustrating a double clamp and pivot construction for mounting the tiltable portion of the device relative to the stationary portion.

55 Figure 7 is a detail section on the line 7-7 of Figure 1 illustrating the method of mounting a wheel on the lower part of the frame.

Figure 8 is a detail section on the line 8-8 60 of Figure 3 illustrating the method of adjustably mounting a member such as a table top on the frame.

In the construction of the device as shown I employ two similar frame members or 65 standards which I have designated generally as A and B and each of these members includes a base portion and an upright portion.

Each of the frame members or standards 70 A and B may conveniently be formed from a single piece of metal rod of suitable dimensions and this rod is so bent as to form a base portion having legs 10 and 12 and an upright 14 arranged centrally of the base thus formed.

In forming the frame members A and B 75 the metallic rod is bent in such shape that each of the legs 10 and 12 and the upright 14 is composed of two spaced parallel portions of the rod, whereby long slots are formed in the respective members. The slots 80 in the legs 10 and 12 are designated by the numerals 16 and 18, and the slot in the upright member 14 is designated by the numeral 20.

85 The frame members A and B are connected by a series of cross rods. As here shown a cross rod 22 is located in the slots 16 of the legs 10 and a cross rod 24 is located in the slots 18 of the legs 12 while a cross rod 26 is located in the lower portion of the slots 90 20 of the uprights 40.

The various cross rods 22, 24 and 26 are threaded at their ends and have nuts 28 95 mounted thereon in engagement with both faces of the members connected by said rods.

The ends of the rod from which each of the frame members A and B is formed are located at the top of the upright portion 14. It is desirable to provide a clamping means 100 to hold the free end portions of the rod in the

desired spaced relation and for this purpose a clamping bolt 30 is mounted in the slot 20 and is provided with a head at one end and a nut 32 threaded on the other end. A flat washer 34 is mounted on the clamping bolt 30 against one face of the upright 14 and a cupped washer 36 is mounted on the bolt at the opposite face of the upright. The concaved face of the cupped washer 36 engages the spaced portions of the upright 14 as clearly shown in Figure 5 and when the nut 32 is tightened on the clamping bolt, these members serve to hold the two spaced rod portions of the upright in the proper relation.

The frame or stand construction as hereinbefore described may be employed for various purposes such as the tiltable mounting of a container, or the adjustable mounting of a table top to form a stand or an inclined drawing table. It may also be employed for any other purpose, such for instance as supporting a hose reel.

In Figures 1, 2 and 4 I have illustrated a tilting holder for a container, which holder is adapted to be swingably carried by the stationary frame or support.

The tiltable support may also be formed in the main of two metal rods arranged in spaced parallel relation and bent into substantially U form. The rods above referred to are designated by the numerals 38 and 40 and when they are arranged in spaced parallel relation they define a long slot 42 between them. The U-shaped support thus formed is of slightly less width than the space between the uprights 14 of the frame members A and B and the slot 42 corresponds substantially to the slots 20 of the uprights.

The U-shaped support may be tiltable mounted between the uprights 14 by means of trunnions shown particularly in Figure 6.

Each of the trunnions consists of a bolt 44 having a head at one end and threaded for a considerable portion of its length. The bolt is mounted through the slot 20 of one of the uprights and through the slot 42 at one side of the U-shaped support. Flat washers 46 are mounted on the bolt 44 on opposite sides of the upright 14 and then a nut 48 is threaded on the bolt and is caused to assume a position spaced slightly from the innermost washer 46. A flat washer 50 is then mounted on the bolt against the nut 48, after which the U-shaped support is caused to engage the inner end of the bolt. Then a cupped washer 52 is mounted on the bolt with its concaved face engaging the rods 38 and 40 constituting the U-shaped support and a nut 54 is then threaded on the extreme inner end of the bolt and is drawn up tightly.

In this way the inner end portion of the bolt, with the aid of the cupped washer 52 and the nut 54, serves as a support for rigidly holding the rods 38 and 40 in assembled position and at the same time the outer end por-

tion of the bolt is free to turn in the slot 20 of the upright of the frame. The trunnion bolt 44 preferably is located just above the clamping bolt 30 for the upright which thereby serves to hold the trunnion at the desired elevation in the slot 20.

Other portions of the U-shaped support may be provided with clamping bolts 30 similar to the one shown in Figure 5 and described as applied to an upright of the frame.

Across the closed end of the U-shaped support a base board 56 is placed and it may be held in place by means of bolts 58.

The base board 56 may be employed for supporting a container which is thus pivotally or tiltable mounted between the uprights of the frame.

At times it may be desired to mount a container such as 60 which is rectangular or square in cross section and it is usually desirable to mount such a container in a diagonal position relative to the base board 56 because the pouring spout is usually located near one of the corners, in the top of the container. To facilitate the diagonal mounting of such a container the base board 56 is provided on its upper surface with a pair of spaced pegs 62 near each of its ends. These pegs may be caused to engage opposed sides of diagonally opposite corners of the container as indicated in Figure 4.

The base board 56 may also be employed for supporting a round or cylindrical container such as 64, as shown in Figure 2 and by dotted lines in Figure 4.

In this connection it may be stated that this device is particularly designed for supporting oil cans of five gallon capacity which are usually of standard size and shape, either rectangular or circular in cross section, and that the pegs 62 are placed in such locations as to accommodate these standard sizes and shapes. When the cylindrical container such as 64 is mounted on the board 56, the pegs 62 engage at substantially diametrically opposite parts of the base of the container.

At times it may be desired to mount a smaller cylindrical container on the base board 56 as indicated by dotted lines 66 in Figure 4. For this purpose the base board 56 is formed on its upper surface with spaced parallel ribs 68 which are adapted to engage within the projecting flange usually formed at the bottom of such a container.

A top board 70 is adjustably mounted at the upper or open end of the U-shaped support and is adapted to engage the top of a container such as 60, 64 or 66.

The top board 70 is provided at its ends with threaded studs 72 adapted to project through the slots 42 of the U-shaped support and they are equipped with wing nuts threaded thereon. The top board 70 may also be provided with pegs 76 on its lower face

to engage the corner portions of a rectangular container as shown in Figure 1.

After a container has been mounted on the base board 56 the top board 70 is put in place and the wing nuts 74 are mounted whereby the container is rigidly held in the U-shaped support. The U-shaped support may then be swung manually on the trunnions 44, as indicated in Figure 2, for the purpose of dispensing contents of the container. This provides a convenient method of supporting and dispensing from a container with a minimum of labor and injury to the clothes or person of the operator, and it also minimizes the chance of spilling and wasting any of the contents.

The top board 70 may be provided with a central opening 78 (Figure 2) to receive the filling nozzle 80 of the container.

At times it may be desirable to have the holder or stand equipped with ground wheels for convenience in transporting it from place to place about the shop, store or service station in which it may be used.

This may be done by mounting stub axles 82 in the slots of the legs at one side of the base. As here shown the stub axles are mounted in the slots 16 of the two legs 10 and ground wheels 84 are pivoted on the outer ends of said axles.

The stub axles 82 are threaded and equipped with nuts 86 and 88 on opposite sides of the leg 10, preferably with a flat washer 90 and a cupped washer 92 interposed to provide a clamping arrangement similar to that described in connection with Figure 5. An additional washer 94 may also be mounted between the nut 86 and wheel 84.

It is obvious that the device might also be equipped with wheels at the other side of the base, but for purposes of stability it is thought best to mount the wheels only at one side inasmuch as it is an easy matter to tip the device slightly so that the legs 12 will be raised from the floor and the entire weight supported upon the single pair of wheels when it is desired to roll the device on the wheels.

I have also provided a yoke shaped handle 96 which has its arms pivoted at 98 on the upper end portions of the uprights 14. The arms of the handle are extended somewhat beyond the pivots 98 and terminate in lateral projections 100 which extend past the vertical planes of the respective uprights 14.

The handle 96 normally depends in the position shown in Figure 1. When it is desired to move the device, the handle may be lifted so that the lateral projections 100 engage the uprights 14 at points spaced from the pivots 98. A further lifting of the handle 96 will then cause the rear portion of the base, or in other words the legs 12, to be lifted so that the weight is thrown upon the wheels 84 to permit the device to be wheeled about.

In Figures 3 and 8 I have illustrated the holder and stand as used for a drawing table or the like. In this construction the frame work, or in other words the members A and B with their connections, may be identical with the construction previously described, but the U-shaped support is omitted.

A table top 102 is provided with a pair of depending apertured ears 104 located substantially centrally of its opposite ends.

Trunnions or pivot bolts 106 are mounted in the upper ends of the slots of the respective uprights 14 and the apertured ears 104 pivotally engage said trunnions or bolts as shown in Figure 8. The head of the bolt is shown as engaging the inner face of the ear 104 and a lock nut 106 is threaded on the bolt in engagement with the outer face of the ear. Another lock nut 108 is threaded on the bolt at the inner side of the upright 14 and a wing nut 110 is threaded on the outer end of the bolt.

A washer 112 may be mounted on the bolt 106 against the inner face of the upright 14 and a bar washer 114 is mounted thereon against the outer face, said bar washer preferably being concaved on its inner face so as to partly embrace the members of the upright and prevent spreading.

The structure may be strengthened by means of another bolt 116 mounted through the lower end of the bar washer and through the slot of the upright, with another washer 118 and a nut 120 on its other end.

When the lock nut 106 and wing nut 110 are drawn up tight the table top 102 is held in the desired position of adjustment, which may be either horizontal or at any desired degree of inclination as desired. Inclined braces 122 and 124 may be supplied for each end of the table top 102, the lower ends of said braces being rigidly and adjustably secured to the uprights 14 by means of bolts preferably equipped with wing nuts 126.

My improved stand provides a convenient means for adjustably and tiltably supporting a member such as a container or a table top as will be readily understood. When it is employed for supporting a container by means of the U-shaped support, it is an easy matter to dispense liquid contents from the container by merely tipping it forwardly as indicated in Figure 2.

The method of forming the U-shaped support and clamping the container therein makes it possible to use the device for containers of many different sizes and shapes.

I claim as my invention:

1. A device of the character described, comprising spaced frame members each formed of metallic elements shaped to form a base and an upright, the base and upright each including portions of the metallic elements arranged in spaced parallel relation to form a slot between them, cross rods mounted in

said slots for rigidly connecting the spaced frame members, and a support mounted for pivotal adjustment between said uprights; said support being provided with pivotal connections carried by the slots of the uprights and vertically adjustable therein.

2. A device of the character described, comprising spaced frame members each formed of metallic elements shaped to form a base and an upright, the base and upright each including portions of the metallic elements arranged in spaced parallel relation to form a slot between them, cross rods mounted in said slots for rigidly connecting the spaced frame members, clamping devices mounted at selected locations in some of said slots for maintaining the spaced metallic elements in proper relation, each clamping device including a cupped washer partially embracing the spaced elements to prevent spreading thereof, and a support mounted for pivotal adjustment between said uprights, said support being provided with pivotal connections carried by the slots of the uprights and vertically adjustable therein.

3. A device of the character described, comprising spaced frame members each formed of metallic elements shaped to form a base and an upright, the base and upright each including portions of the metallic elements arranged in spaced parallel relation to form a slot between them, and cross rods mounted in said slots for rigidly connecting the spaced frame members.

Des Moines, Iowa, November 20, 1929.
AUGUSTUS T. SMITH.