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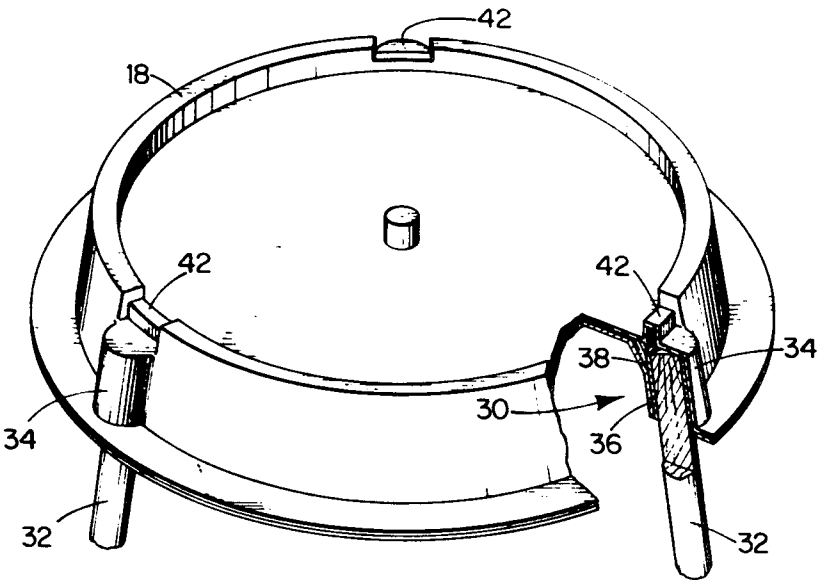
[54] **STACKABLE TRANSIT PLATFORM**
8 Claims, 2 Drawing Figs.

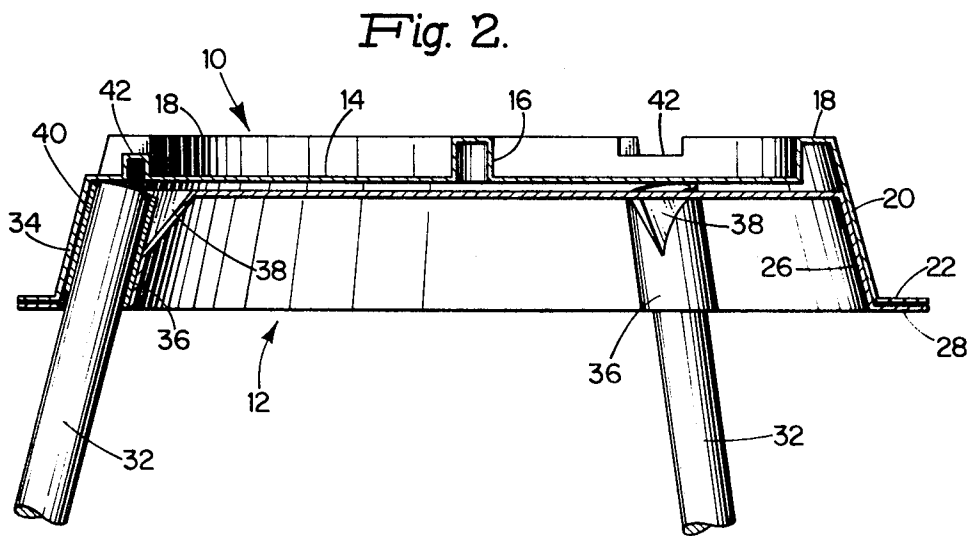
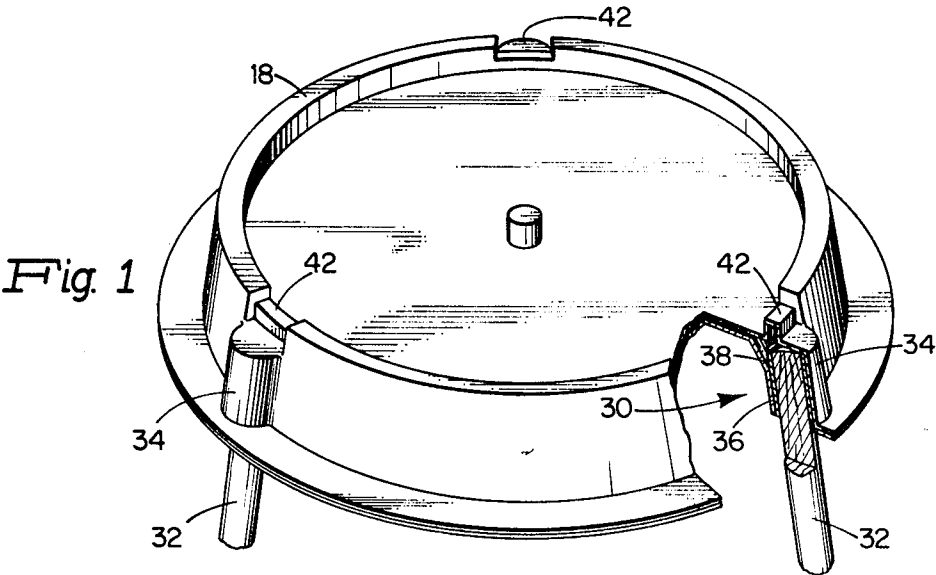
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ABSTRACT: This disclosure relates to transit platforms suited for simplified educational or demonstrative use. The platforms are formed from a pair of dishlike, molded plastic sheets which are secured together in a nested configuration so that their rims are generally concentric. The concentric rims are molded to define a number of downwardly opening sockets which are spaced circumferentially about the platforms and which receive removable legs. The upper surface of the platform has a central upstanding peg which engages the transit. The periphery of the top of the platform is surrounded by a rim which holds the transit in place and which may be marked in degrees. The rim includes a number of circumferentially spaced depressions which are intended to receive projections formed at the underside of other platforms thus facilitating the stacking of the platforms one atop the other.





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STACKABLE TRANSIT PLATFORM

BACKGROUND OF THE INVENTION

This invention relates to transit platforms, and, more particularly, to transit platforms of inexpensive design and construction which are suited for use in schools and the like to demonstrate, simply, the use and theory of a transit.

When teaching or demonstrating surveying theory and techniques to a class, it may be desirable to provide a transit for each student's use. Because accurate transits, suited for engineering purposes, are quite expensive, economy requires the use of relatively inexpensive transits. Although the less accurate, simplified transits are not suitable for engineering purposes, they are sufficient to demonstrate the theories involved. Similarly, the transit platform also should be of inexpensive, simplified construction. It is among the primary objects of the invention to provide a transit platform of inexpensive construction which is sufficient to demonstrate surveying techniques. Additionally, transit platforms constructed in accordance with the invention may be stacked one atop the other which facilitates storage and handling of a large number of such platforms as might be desired when each student in the class is to be provided with an individual platform and transit.

SUMMARY OF THE INVENTION

In brief, the transit platform is fabricated from a pair of molded plastic, dishlike members. Each member has a circular, generally flat base and an integral downwardly extending circumferential skirt. One of the dishlike members is of smaller diameter than the other so that it may fit against the bottom of the larger dish with the skirt on the inner, lower dish being disposed within the skirt of the larger dish.

The skirts of both dishes are formed with depressions at spaced, circumferential intervals, with the depressions defining downwardly opening sockets. The sockets are intended to receive removable legs which support the transit platform.

The upper, larger dish also includes an integrally molded circumferential flange which projects upwardly beyond the horizontal wall of the dish. The flange may serve to retain the transit in place on the platform and also may be marked in degrees. The upstanding rim also is provided with a depressed or slotted portion in association with each socket. The depressions in the upper rim are formed to receive projections formed at the underside of another platform to enable a number of such platforms to be stacked one atop the other.

Among the primary objects of the invention is to provide a transit platform which may be stacked with other, similar transit platforms.

A further object of the invention is to provide a simple, inexpensive transit platform which is suited for use particularly in the simplified demonstration of surveying techniques and theory.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other objects and advantages of the invention will be understood more fully from the following detailed description thereof with reference to the accompanying drawings wherein:

FIG. 1 is an illustration of the transit platform partly broken away; and

FIG. 2 is a sectional elevation of the transit platform as viewed along the line 2-2 of FIG. 1

DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in the drawings the transit platform is formed from an upper dishlike member 10 and a lower, smaller dishlike member 12. Both members 10, 12 are formed from an integral sheet of moldable plastic such as styrene or the like. The upper dish like member 10 includes a generally circular base 14 and may have a central pin 16 projecting upwardly therefrom. The pin 16 is intended to receive an inexpensive

transit suited particularly for simplified demonstration and provides a pivot for the transit. The upper dishlike member includes an integral rim which surrounds the base 14 and extends upwardly therefrom. The rim may be employed to retain the transit and also may be marked, appropriately, in degrees. A circumferential skirt 20 is formed integrally with the upper dishlike member 10 and extends downwardly and outwardly, in a tapered configuration, from the rim 18. The skirt 20 terminates in a generally horizontal flange 22.

The lower dishlike member includes a base 24 and an integral downwardly extending circumferential skirt 26 which is tapered identically to the skirt 20 of the upper dishlike member 10. The skirt 26 on the lower member 12 also terminates in a generally horizontal circumferential flange 28. The skirts 20, 26 and flanges 22, 28 of the upper and lower members 10, 12 respectively are intended to be mated in a snug, concentric fit as shown and the mating surfaces are cemented together to define a rigid, unitary piece.

The skirts 20, 26 are formed to include a number of dimples 34, 36 at regular and circumferentially spaced locations about the transit platform. The dimples on the outer and inner flanges 20, 26 cooperate to define downwardly opening sockets 30 which receive removable legs 32. The concave surfaces of the dimples 34, 36 face each other to define the socket. The dimples preferably are reinforced by the formation of a gusset 38 which extends between each dimple 36 and the base 24 of the lower dish 12.

A tubular insert 40 is inserted into the socket defined by the dimples 34, 36 and is cemented in place. The legs 32 then may be detachably inserted into the tubular inserts 40. In the preferred embodiment of the invention the skirts 20, 26 and their associated dimples 34, 36 and the tubular inserts 40 all are disposed in a downwardly and outwardly divergent attitude so that the legs 32 are received in a stable, tripod configuration.

In order to facilitate stacking of the transit supports, one atop the other, the rim 18 is provided with a depression 42 in association with each dimple 34. The depressions 42 in the rim 18 receive the gussets 38 which tend to project inwardly and downwardly at the underside of the transit platform. This permits the platforms to be stacked one atop the other more closely. Additionally, the engagement of the gussets 38 with the depressions 42 in the rim 18 also preclude relative rotation of the stacked transit platforms.

Thus, it will be seen that the transit is quite suitable for mass demonstration use as in a class in that it is of simple, inexpensive construction yet is sufficient to demonstrate basic surveying techniques. Additionally, the legs may be detached which enhances further the storage of the platforms in a relatively compact space.

It should be understood that although the invention has been described as being employed primarily for use in association with a transit, it may be employed to support other sighting or directional devices such as telescopes, direction finders and the like.

It should be understood that the foregoing description is intended merely to be illustrative of the invention and that other embodiments and modifications may be apparent to those skilled in the art without departing from its spirit.

Having thus described the invention, what I desire to claim and secure by Letters Patent is:

1. A platform adapted to support a device for rotation about a vertical axis comprising:

an upper dishlike member having a circumferential downwardly depending outer skirt;

a lower, dishlike member having a downwardly depending inner skirt, said lower member being disposed concentrically below said upper member and within the outer skirt of said upper member, said inner skirt of said lower member being in engagement with said outer skirt of said upper member;

said outer member having a plurality of outwardly bulging dimples formed therein at circumferentially spaced loca-

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tions, said outwardly bulging dimples defining inwardly facing concave depressions;
said inner flange of said lower member having inwardly bulging dimples defining outwardly facing concave depressions, said concave depressions on said inner skirt being circumferentially spaced thereabout in registry with the inwardly facing concave depressions formed on the outer skirt of said upper member, said depressions on said inner and outer flanges defining a socket receptive to a leg for supporting said platform.

2. A platform as defined in claim 1 further comprising: means forming a gusset in association with each of said dimples formed on the inner flange of said lower member, each of said gussets extending from its associated dimple to the underside of the base of said lower member.

3. A platform as defined in claim 2 wherein said upper member includes a circumferential rim extending upwardly from and about said base of said upper member; and means forming depressions along said rim, said depressions being formed in circumferential registry with the sockets and said gussets.

4. A platform as defined in claim 3 further comprising: a tubular member disposed within each of said sockets and in engagement with the concave surfaces of said socket-defining dimples, said tubular member being bonded

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securely to the concave surface of each of its associated dimples.

5. A support platform as defined in claim 1 further comprising:

5 a tubular member disposed within each of said sockets and in engagement with the concave surfaces of said socket-defining dimples, said tubular member being bonded securely to the concave surface of each of its associated dimples.

10 6. A support platform as defined in claim 1 wherein said skirts are tapered downwardly and outwardly and wherein said sockets are disposed in a downward and outward attitude whereby said legs may be received in a downwardly diverging configuration to provide firm support for said platform.

15 7. A platform as defined in claim 1 further comprising: a pin formed integrally with and at the center of said base, said pin extending upwardly from said base to provide a substantially vertical rotational axis for a member supported on said platform

20 8. A platform as defined in claim 1 wherein the lower end of said outer skirt of said outer member and lower end of said inner skirt of said lower member terminate in substantially horizontal circumferential flanges, said skirts and said flanges being bonded to each other along their mating surfaces.

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