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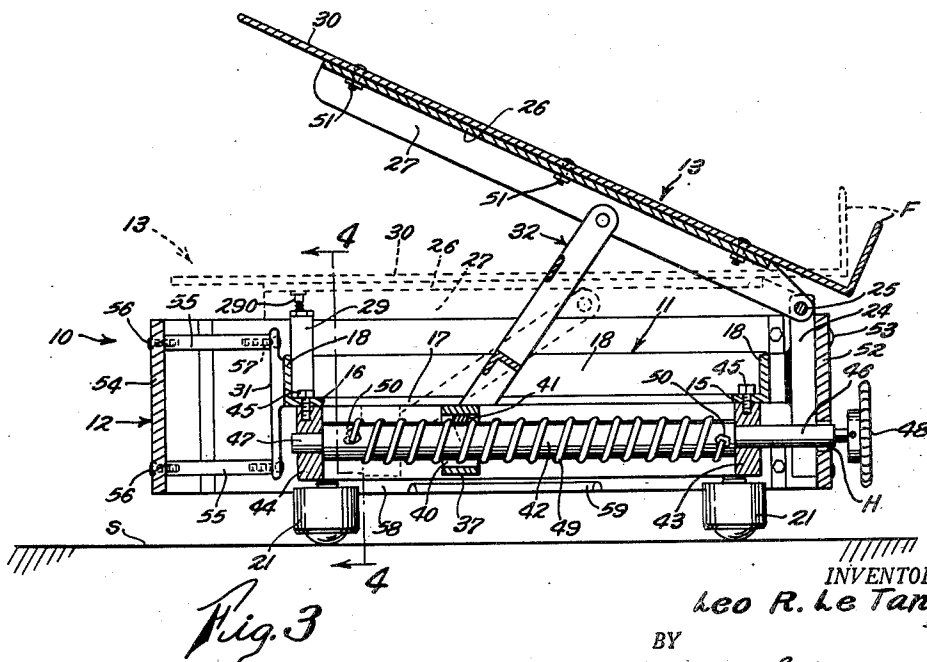
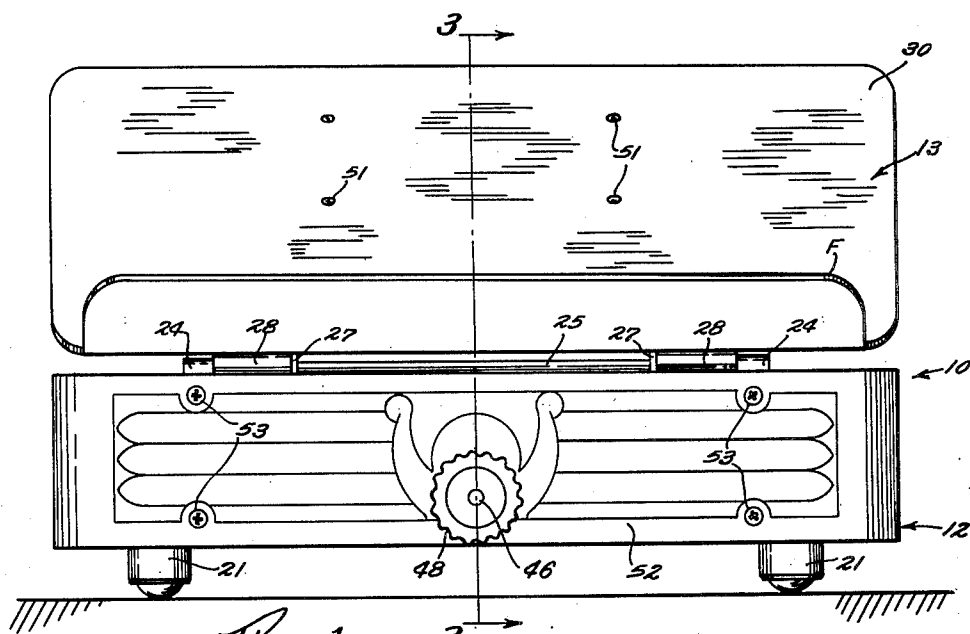
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2,639,541

MISSAL STAND

Filed Aug. 14, 1951

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

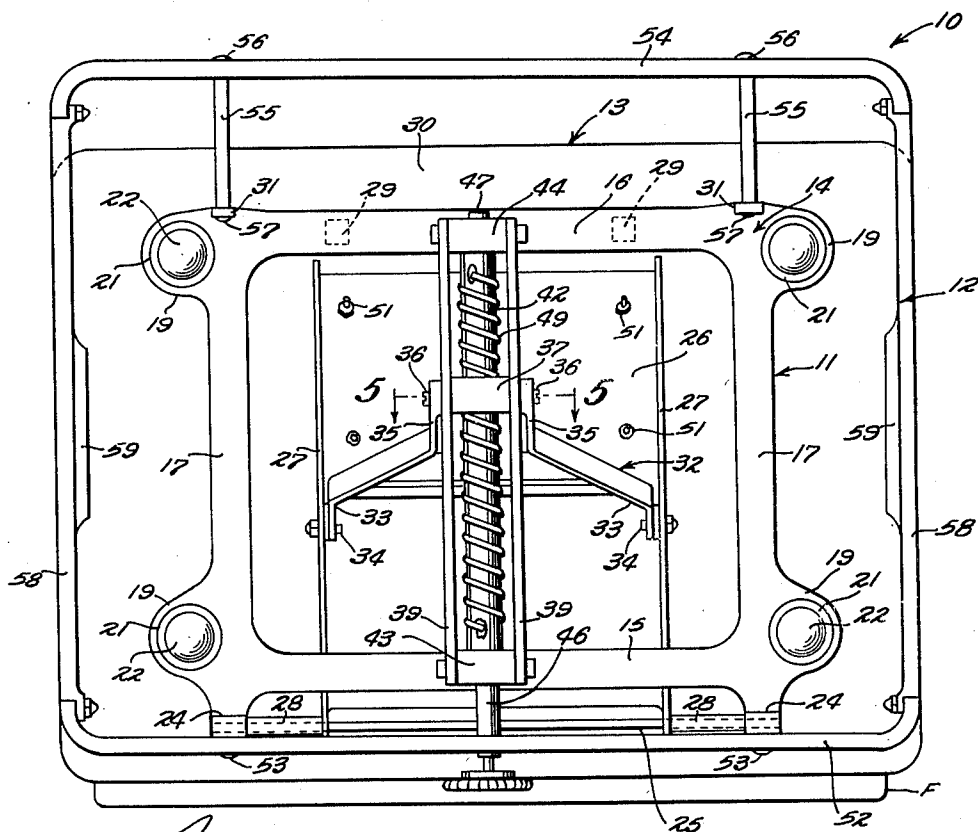


Fig. 2

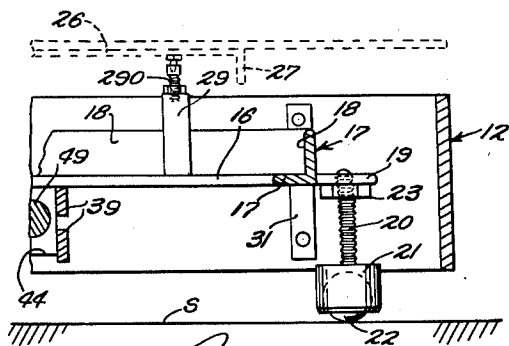


Fig. 4

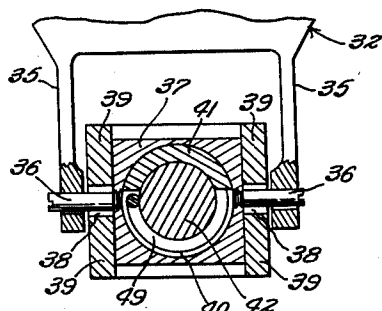


Fig. 5

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MISSAL STAND

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The present invention relates to missal stands, and has for an object the provision of a device that is free of recognized disadvantages that attend the practical use of such devices.

Another object of the invention is to provide a missal stand which affords improved freedom of movement on the altar and greater ease and certainty in regulating the angle of incline of the missal book supported thereon.

Still another object of the invention is to provide a missal stand wherein the supporting and adjusting means may be produced uniformly and in quantity as units without limiting the choice of reasonable size, or materials or design of the individual missal stands embodying said units and to thus assure the several advantages at a minimum of cost and permit an increased portion of the cost of each finished stand to be represented in the selected materials finish and design of the exposed portion of the device.

A further object is to provide a missal stand including a normally concealed base unit that is light in weight, very sturdy and stable, and wherein the adjustment of the angle of incline of the book support is infinitely variable between horizontal and an established limit of say 45° and is positively self-holding in all adjusted positions.

A still further object is to provide a footed support for a missal stand and the heavy book thereon, that may be moved about on the altar cloth without wrinkling, displacing or injuring the latter regardless of the fineness of its texture.

These and other important objects are attained by the means described herein and exemplified in the accompanying drawings, in which:

Fig. 1 is a front elevational view of a missal stand embodying the invention, the book receiving table being in an inclined position.

Fig. 2 is a bottom plan view of the device of Fig. 1.

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is a cross sectional view taken on line 5—5 of Fig. 2.

Heretofore missal stands have been adapted for adjustment of the table to predetermined angles of adjustment by various rods or props seating in spaced notches and inadvertance in failing to properly seat such members in the desired notch may permit the stand to collapse under the weight of a heavy missal book and thus cause annoyance and possibly an injury to the fingers. Moreover when such stands are rest-

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ing on an altar cloth it is difficult to bodily shift them without scuffing and disarranging the cloth.

The device of the present invention avoids the aforementioned difficulties completely and instead all manner of necessary adjustments are made with ease and safety.

The missal stand 10 of the invention comprises a normally concealed base unit 11 which is surrounded at the front, rear and lateral sides by decorative skirt assembly 12 of desired size, and of selected materials and design, which skirt assembly and a book support table 13 to correspond in size to the skirt assembly are rigidly connected with the base unit in the manner hereinafter set forth. The unit 11 includes all of the operating parts and is advantageously made in a single size for economy in production and which can be fitted with a skirt and table of desired size, material, finish and design.

As can be best seen in Figs. 2 and 3 the base unit includes a horizontal, open, rectangular frame 14 which is preferably a single light weight metal casting with parallel front and rear members 15 and 16 connected at opposite ends by parallel end members 17—17. Members 15, 16 and 17 may have upstanding ribs 18 to form an L-shaped cross section for strength and light weight. Integral ears 19 extend outwardly adjacent each end of the members 17, and each ear has a threaded bore for adjustably receiving an upright threaded shank 20 having a ball caster assembly 21 at the lower end thereof. The ball 22 is free turning in all directions in assembly 21 and said ball is desirably of ample diameter say $\frac{5}{8}$ " or $\frac{3}{4}$ " D. Threaded adjustment of shanks 20 into ears 19 and held by locknuts 23 serves to afford a limited vertical adjustment of frame 14 with respect to a supporting surface S, and also permits leveling of the frame. It will be noted that the ball casters 21 are arranged in outboard relation to the lateral sides 17 of the frame to increase the stability of the base unit, which, as will be seen from the ensuing description receives the thrust of the weight of the stand and a heavy missal book thereon on a low center of gravity in the area defined by the four ball casters.

The front member 15 has upright integral lugs 24 at opposite ends thereof extending for a distance above and below the plane of the frame and said lugs support a hinge rod 25 in aligned bores in the tops thereof in parallelism to the top front of the unit. A plate 26 has downturned parallel flanges 27 extending along its lateral

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edges and in the slightly extended forward ends of said flanges are fixed a pair of outwardly extending aligned spacers 28—28 which may turn on rod 25 and permit hinged movement of the plate. The ends of the spacers abut the lugs respectively and serve to center plate 26 between the lateral side edges of the frame.

The rear frame member 16 has upwardly projecting integral pedestal members 29—29 spaced apart so as to form stops on which the rear of the plate 26 may rest, these pedestals having vertical threaded bores in the tops to receive screw studs 290 each provided with lock nuts so that they may be adjusted to provide a stop limit for the rear corners of plate 26 in level condition and with positive support adjacent the four corners by said pedestals and said hinge rod 25. A book supporting table 30 and having an upstanding ledge or flange F on its front edge is adapted to be secured flatwise on the top face of plate 26 and these two parts may be considered as the table assembly 13 aforementioned which holds the missal book (not shown) in any selected horizontal or inclined position as may be required. The adjustment and positive holding means for assembly 13 will be later described in detail.

The rear frame member 16 has adjacent its opposite ends and on its outward edge a pair of integral upright lugs 31—31 which extend for a distance above and below the level of frame 14 and are in opposition to lugs 24—24 on the front member 15. The ornamental skirt 12 which surrounds the base unit 11 and conceals it from view is made up in a size to conform to the area of table 30 which may be selected according to requirement or choice without impairment of the functional efficiency of the stand and without specific regard for the dimension of the base unit 11.

The means for infinitely adjusting the incline of table 13 within designated limits and positively holding it in adjusted positions is as follows:

A strut link indicated generally as 32, has at its upper end a pair of divergent arms 33 which are pivotally connected intermediate the ends of flanges 27 of plate 26 by means of studs 34 which are fixed to said flanges in any suitable manner. At its lower end the link 32 has a pair of parallel arms 35 which are pivoted on pins 36 which project outwardly and horizontally from opposite edges of traveling blocks 37 and through parallel horizontal ways or slots 38 between guide members 39 arranged in pairs for guiding the block and said pins for rectilinear movement. The block 37 has a large bore 40 through the thickness thereof, which bore has its axis at right angles to and in a common plane with the aligned axes of pins 36. Secured to the upper half of the wall of bore 40 in the block is an arcuate saddle piece 41 which is narrower than the thickness of said block, said saddle piece having its side edges inclined with relation to the adjacent faces of the block through which the bore passes. The saddle piece is suitably fixed in position for example by means of hard solder (not shown) or by any other means.

A shaft 42 extends concentrically through bore 40 and substantially clears the arcuate face of saddle piece 41 but it may be made to form a light antifriction contact with the saddle piece for the purposes of the invention. Secured in depending relation on the bottom faces of front and rear members 15 and 16 respectively are

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blocks 43 and 44 held by suitable means such as screws 45. These blocks have aligned bores therein in which are journaled the extended ends 46 and 47 of shaft 42, said ends being of reduced diameter and presenting shoulders to adjacent faces of blocks 43 and 44 to prevent axial shifting of the shaft. The forward and reduced end of shaft 42 extends for a distance beyond the front of unit 11 and is adapted to have manual rotation imparted thereto by means such as an ornamental knob 48 removably connected to end 46 in any approved manner.

The pairs of strips 39 are suitably fastened in spaced parallel relation at the opposite sides of blocks 43 and 44 and form therewith a slotted guide for traveling block 37.

A helically coiled wire 49 snugly surrounds shaft 42 and has its extreme ends turned radially inwardly and entered into bores in the shaft at 50—50 adjacent the journaled ends in the blocks 43 and 44, said ends being soldered firmly to avoid accidental displacement. The saddle piece 41 enters the space between adjacent turns of wire 49 and presents its inclined edges to the sides of said turns so that the block 37 is caused to move axially of the shaft in the guide constituted by the fixed pairs of strips 39 when the shaft is turned and the strut 32 link effects a positive and self-holding adjustment of the table assembly 13. A minimum of effort is required to turn the shaft for increasing and decreasing the angle of incline of the table with a heavy missal book thereon, due to the limited and free sliding tangential contact of pins 36 on the top edges of the lower strips 39 of the guide and of the edges of the saddle piece 41 along the round surface of the wire 49. The weight of the table is extremely well balanced by the relatively simple and inexpensive structure described. There is no requirement for a high degree of precision work in the construction although the practical operation of the device is such as would be expected only in a precision construction. In use during services, for example, an easy and scarcely noticeable manual turning of the knob 48 enables infinitely variable adjustments as required for more comfortable reading from the missal book with complete assurance that there will be no untoward occurrence that may involve distraction from the solemnity of the occasion or even result in injury. When the stand is shifted bodily the altar cloth will not be disturbed or scuffed in the operation. When the stand is not in use for holding the missal book the table may be moved to a horizontal position for holding other articles and at this time the plate 29 is positively forced to seat on the previously adjusted screws 290 in the tops of pedestals 29 to assure complete solidity as well as perfect level of the table.

In preparing a complete missal stand of the invention embodying a base unit as described, the table 30 is selected in a desired size from chosen material such as thin wood, or sheet metal, whereupon the decorative skirt 12 is chosen or specially created from such materials as sheet or cast metal plates, or fine wood and fabricated surface finish and ornamentation as desired. There are few limitations on the extent and nature of the design and kind of ornamentation that may be embodied in these stands. The skirt assembly however formed has a front panel such as 52 rigidly secured directly on upright lugs 24—24 by means such as screws 53 and this panel has a hole H through which the extended end

46 of the shaft 42 is passed prior to attaching the knob 48. When front to rear dimension of the skirt is greater than the corresponding dimension of unit 11 vertically spaced pairs of horizontal spacers 55 are secured by screws 56 to the rear panel 54 of the skirt while the remaining ends of said spacers are secured to upright lugs 31 by screws 57. It will be understood that if size permits the rear panel may be secured directly to lug 31. The lateral panels 58—58 are rigidly connected at opposite ends to the adjacent ends of the front and rear panels. In the embodiment shown the ends of panels 52 and 54 are turned toward each other on an ample radius and the ends of panels 58—58 are shouldered to form a neat and invisible lap joint. The panels 58—58 in the present embodiment are thin ornamental castings and are provided on the bottom edges with inwardly extending flanges 59 to provide a convenient and comfortable place for the fingers when lifting and carrying the stand.

The operation of the device having been explained concurrently with the description, requires no further description.

What is claimed is:

1. In a device of the class described the combination of an open horizontal frame, a plate hinged to the top front of the frame, a pair of rectangular bearing blocks, a shaft journaled at opposite ends in said blocks, pairs of guide strips secured in parallelism on opposite sides of the bearing blocks and defining parallel guide slots longitudinally centered in a plane with the center axis of the shaft, a traveling block disposed guidedly between the pairs of guide strips and having an enlarged smooth bore surrounding the shaft, pivot pins extending outwardly from opposite sides of the traveling block on a common diameter of said smooth bore, said pins projecting through the respective guide slots for tangential contact with the edges of guide strips, the bearing blocks being secured to the bottom front and bottom rear of the frame midway the ends and disposing the center axis of the shaft at right angles to the hinged mounting of the plate and in a horizontal plane below the frame, a rigid strut link having at one end a pair of divergent arms pivoted respectively to opposite sides of the plate and having at its opposite end a pair of parallel arms pivoted respectively on the free ends of the pivot pins outwardly of the guide strips, a helically coiled wire surrounding the

shaft and having its opposite ends only anchored to the shaft, an arcuate saddle piece fixed to the wall of the bore in said traveling block and entering between one pair of adjacent turns of the wire and presenting its edges for tangential contact with the wire, and means to rotate the shaft.

2. In a device of the class described a rigid and centrally open frame, a plate hinged to the top front of the frame, a pair of blocks secured to the bottom of the frame at opposite sides of the central opening therein, a rotatable shaft journaled at opposite ends in said blocks, pairs of parallel spaced guide strips secured at opposite ends on the vertical sides of said pair of blocks and defining spaced guide slots having their longitudinal centers in a common horizontal plane with the center axis of the shaft, a wire wound in open helical turns about the shaft and anchored at its ends to said shaft near the respective journal blocks, a traveling block having a smooth bore, the shaft and wire winding passing freely through the bore and permitting shifting of said traveling block between the journal blocks, the pairs of guide strips providing between them a clearance way permitting movement of the traveling block longitudinally of the shaft, pivot pins extending outwardly from opposite sides of the traveling block through the guide slots and adapted for tangential sliding contact on the edges of the strips bounding the slots, an arcuate saddle piece secured to the wall of the bore in the traveling block and entering between adjacent turns of the wire to present its edges for tangential sliding contact with the surface of the wire, and a strut link having its upper end branched and pivoted to the sides of the plate at uniform distances from its hinged axis, the lower end of the link being provided with spaced arms pivoted on the free ends of the pivot pins and adjacent the outer sides of the pairs of guide strips.

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