Nov. 6, 1934. A. F. BECK 1,979,854

HINGE BRACKET

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Fig. 1.

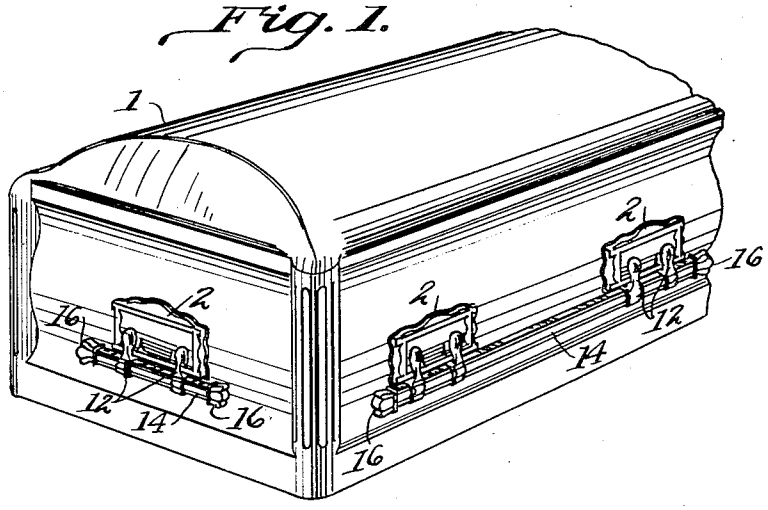


Fig. 2.

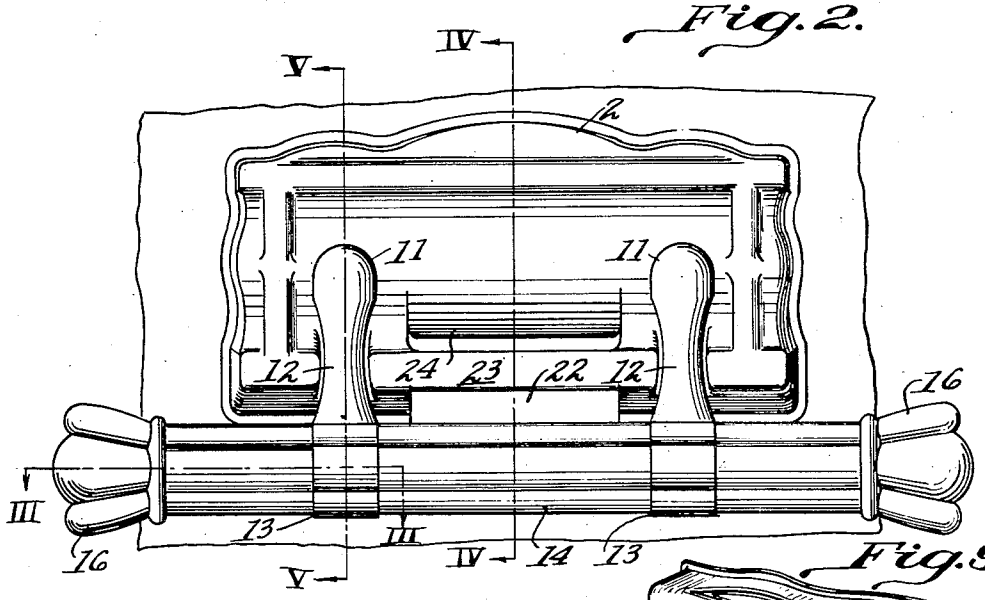


Fig. 3.

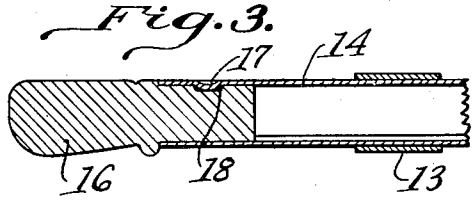
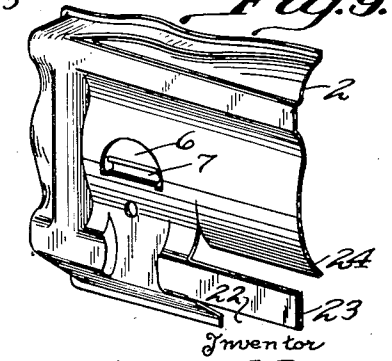


Fig. 9.



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Fig. 5

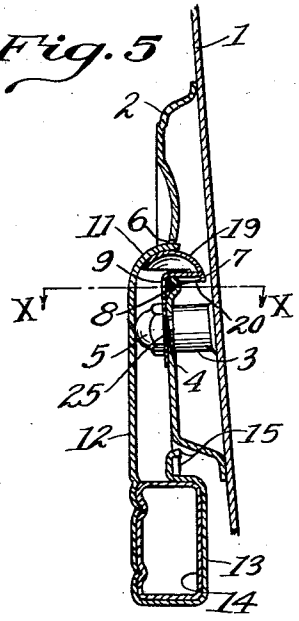
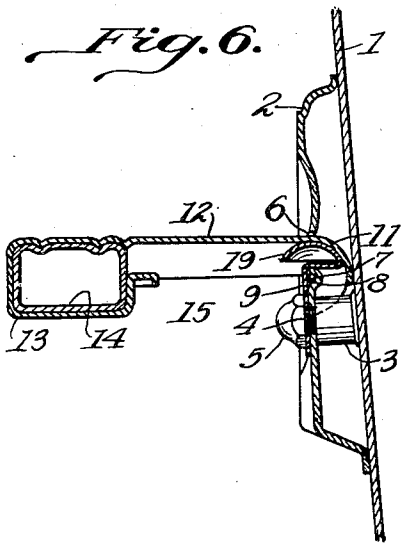


Fig. 6.



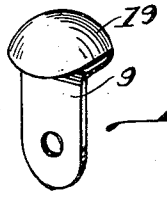
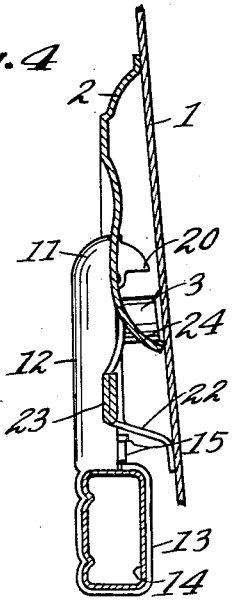


Fig. 7.

Fig. 4



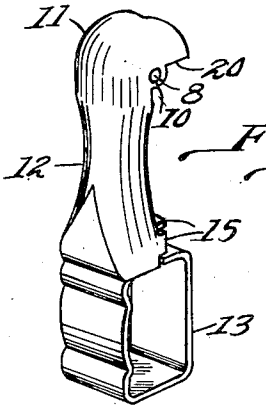
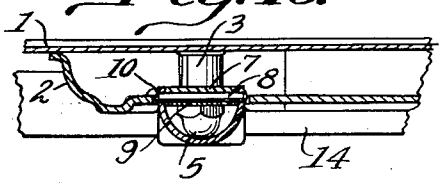


Fig. 8.

Fig. 10.



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Patented Nov. 6, 1934 1,979,854

UNITED STATES PATENT OFFICE

1,979,854

HINGE BRACKET

Allen F. Beck, Columbus, Ohio, assignor to The Clark Grave Vault Company, Columbus, Ohio, a corporation of Ohio

Application July 11, 1933, Serial No. 679,931

6 Claims. (Cl. 16—112)

This invention relates to improvements in swinging handles and has particular reference to an improved handle construction which has been especially designed for use in connection with the hood or cover sections of grave vaults, caskets or the like to facilitate the lifting and transportation of such objects.

It is an object of the present invention to provide a swinging handle structure which is adapted to be spring pressed in all of its operative positions so that when the associated handle bar is released, the spring pressure will be such as to cause it to remain in its given position of adjustment, thereby avoiding undesired movement thereof, but providing a means whereby the bar can be returned to any other desired position by the application of slight manual pressures. By the provision of these features of construction, the hingedly supported bar is prevented from striking, when released, associated vault parts and creating noise or other objectionable features.

It is another object of the invention to provide a swinging handle construction especially designed for application upon the exterior surfaces of sheet metal grave vaults, and wherein the handle construction is strong, efficient, economical, is devoid of fastening elements which penetrate the sides of an associated vault hood, and wherein the handle construction, when applied, presents a pleasing ornamental appearance.

With these and other objects in view, which will appear as the description proceeds, the invention consists in the novel features of construction, combination of elements and arrangements of parts hereinafter fully described and pointed out in the appended claims.

In the accompanying drawings:

Fig. 1 is a perspective view of the hood section of a metallic grave vault, illustrating the improved swinging handle construction, comprising the present invention, mounted in connection therewith;

Fig. 2 is an enlarged view in front elevation of the handle construction;

Fig. 3 is a detail sectional view taken through the handle bar on the plane indicated by the line III—III of Fig. 2;

Fig. 4 is a transverse vertical sectional view on the line IV—IV of Fig. 2;

Fig. 5 is a similar view on the line V—V of Fig. 2;

Fig. 6 is a transverse sectional view showing the handle bar in its elevated or active position;

Fig. 7 is a detail view of one of the spring members used in connection with each handle bar support,

Fig. 8 is a similar view of one of the bar supports;

Fig. 9 is a detail perspective view of one of the securing plates;

Fig. 10 is a transverse sectional view taken on the line X—X of Fig. 5.

Referring more particularly to the drawings, the numeral 1 designates the hood section of a sheet metal grave vault. Such vault has its hood section provided along its sides and ends with supporting handles by means of which the lifting and carrying of the vault may be effected. The improved handle construction, comprising the present invention, comprises a plurality of ornamental sheet metal plates as indicated at 2. These plates are secured to the outer walls of the hood at appropriate positions by providing such outer walls with welded studs 3, terminating in threaded outer ends 4. These outer ends pass through registering openings provided in the plates 2 and are equipped with crown nuts 5 by means of which the plates are securely retained in connection with said studs and the sides of the vault hood. This construction, avoids, as set forth in my prior patent, No. 1,660,703, the necessity for passing the plate securing elements through the side walls of the hood and thus avoids the possibility of moisture seepage through the openings in the walls of the hood through which such securing elements ordinarily pass.

As shown in Fig. 9, the outer wall of each of the plates 2 is provided with a pair of semi-circular openings 6, and each of these openings is formed along its lower horizontal edge with a curved lip 7. This lip is arranged for the reception of a transverse pin 8, which is held in a seated position in said lip, as shown in Fig. 6, by the vertical leg of a spring member 9, the latter being secured to an associated plate by means of the nuts 5.

The ends of the pin 8 are received within registering openings 10 formed in the hollow semi-spherical upper ends 11 of pivoted handle bar supports 12. These supports are preferably formed from stamped sheet metal and have their lower ends terminated in rectangular loops 13 which are adapted for the reception and conform to the contour of longitudinally extending metallic handle bars 14. Also, the supports 12, contiguous to the upper edges of the handle bars, are provided with interlocking lugs 15 by which the loops 13 are positively maintained in clamping

engagement with the exterior surfaces of said bars. The outer ends of the bars 14, as shown in Fig. 3, are equipped with ornamental ends 16 which are secured in connection with the open ends of the bar material 14 by the beads 17 which enter the depressions 18 formed in the ends 16. The upper ends of the spring members 9 are formed with semispherical enlargements 19 which are positioned within and conform to the configuration of the internal surfaces of the upper ends 11 of the handle supports 12. The spring enlargements 19 resiliently and frictionally engage at all times with the supports 12 and offer resistance to the swinging movement of the handle bars and their supports through the 90° of turning movement which these members possess. When in the elevated position disclosed in Fig. 6, the edges 20 of the supports 12 are brought into engagement with the rear surfaces of the plates 2, thereby limiting further upward swinging movement of the bars and their associated supports.

In the event the bars are released, accidentally or otherwise, when in their elevated positions, dropping or swinging movement thereof is precluded by the frictional pressure exerted on the interior surfaces 11 of the supports 12 through the inter-position of the spring enlargements 19. This pressure is sufficient to normally hold the straps against movement to overcome the weight of the bars 14 at their outer ends, requiring some positive application of extraneous pressure to swing the bars downwardly. This prevents the noisy dropping of the bars against the sides of the hood as in ordinary constructions and in this respect overcomes one of the outstanding objections to ordinary hinge mountings for handle bars.

The construction has the advantage of being simple and economical, presents a pleasing and attractive appearance when mounted on the exterior of a vault hood, and also possesses marked mechanical strength and durability. It will be noted that the supports 12 are of curved hollow formaton so that when in their lowered positions, the same cover and conceal the securing nuts 5 so that normally the latter are not exposed to view.

As shown in Figs. 2 and 4, the central lower portion of the plate 2 is recessed and under-cut as at 22 to produce the off-set horizontally extending bars 23. Each of these bars consists of a double thickness of metal which is formed by bending upwardly the stock of the plate produced in the formation of the recess 22. These bars are adapted for the reception of supporting straps used at the time of interment and the form of the bars is such as to avoid cutting or injuring the supporting straps. Above the bars 23, the sheet metal material from which the plates 2 are formed is rounded or curved as at 24 in an inwardly direction to provide a wide guide opening for the straps and likewise avoid injury thereto.

The welded studs are shouldered as at 25 to engage with the rear surface of the plate 2 around the openings through which the threaded shanks provided at the outer ends of the studs project. When the nuts 5 are threaded into clamping engagement with the plates, the latter are prevented by the shoulders of the studs from flexing. This preserves the fixed pivotal relationship between the pivot 8 of the supports 12 and the sides of the vault hood, so that the spherical head 11 of the supports 12 will be prevented from engaging frictionally with the sides of the vault hood and maintained in desired operative relationship therewith.

What I claim is:

1. A handle bar hinge comprising a plate formed for attachment to the side of an associated body, a handle bar, a pair of supporting members connected at their outer ends with said handle bar, the inner ends of said supporting members terminating in semi-spherical enlargements, a pivotal connection between the enlarged ends of said supporting members and said plate, and resilient means arranged within the spherical enlargements of said supporting members and frictionally engaging the same to exert pressures tending to resist swinging movement of said handle bar and supporting members.

2. A handle bar hinge comprising a sheet metal plate provided with inturned peripheral flanges, means for securing said plate to the side of an associated body with the main body portion of said plate spaced from said body, said plate being provided with a pair of openings, a pair of handle bar supporting members provided at their inner ends with spherical enlargements arranged to be received within said openings, pivot means for uniting the spherical enlargements of said supporting members in connection with said openings, and resilient means arranged within the spherical enlargements of said supporting members and in constant frictional contact therewith and operative to resist pivotal turning movement of said supporting members.

3. A handle bar hinge comprising a plate, means for securing said plate to an associated body, said plate being provided with a semi-circular opening, a lip formed along one of the edges of said opening, a pin positioned in said lip, a spring member provided with a resilient semi-spherical head and a depending leg for connection with said securing means, said leg serving to retain said pin in seated relation with said lip, and a handle bar supporting member having a semi-spherical enlargement at its upper end, said enlargement being received within the opening provided in said plate and pivotally supported by said pin in frictional engagement with said resilient head of the spring member to resist movement of the supporting member.

4. A swinging handle mechanism for grave vaults, comprising a sheet metal plate formed with a peripheral flange arranged to engage directly with the side of a vault body, a stud projecting outwardly from said body and having a threaded outer extremity arranged to pass through an opening formed in said plate, resilient means positioned upon said stud, a nut secured to said threaded extremity and serving to hold both the plate in connection with the vault body and the resilient means in position upon said plate, a handle supporting member pivoted to said plate above and in vertical registration with said securing nut, said supporting member being formed to cover said nut and resilient means when the supporting member is in a lowered position, said resilient means cooperating with the pivotal portion of said supporting member to resist swinging movement thereof.

5. A handle mechanism for grave vaults comprising a sheet metal plate formed with a peripheral flange arranged to engage directly with the side of a vault, a shouldered stud projecting outwardly from said body and having a threaded outer portion arranged to pass through an opening provided in said plate, a nut secured to the threaded portion of said stud and serving to retain

the plate in connection with the vault body, a handle supporting member pivoted to the plate in close proximity to the opening for said stud, the shoulder on said stud cooperating with the nut when the same is tightened to hold the pivotal mounting of the supporting member in proper operative relationship with respect to the side of the vault.

6. A handle mechanism for grave vaults comprising a sheet metal plate formed with a peripheral flange arranged to engage directly with the side of a vault body, means for securing said plate in rigid association with the vault body, an integral horizontally extending bar formed with the lower central portion of said plate in spaced relation from the vault body to provide for the connection of supporting straps with said handle mechanism, said flange being interrupted for substantially the length of said bar and turned under said bar so that said bar comprises a doubled metal structure to strengthen same and eliminate sharp corners for the protection of the supporting straps, the body of said plate above said bar being recessed to produce guide openings for the insertion of the supporting strap around said bar.

ALLEN F. BECK.