Oct. 22, 1968 W. E. JORNS 3,406,982

FEED BUNK

Filed July 13, 1965

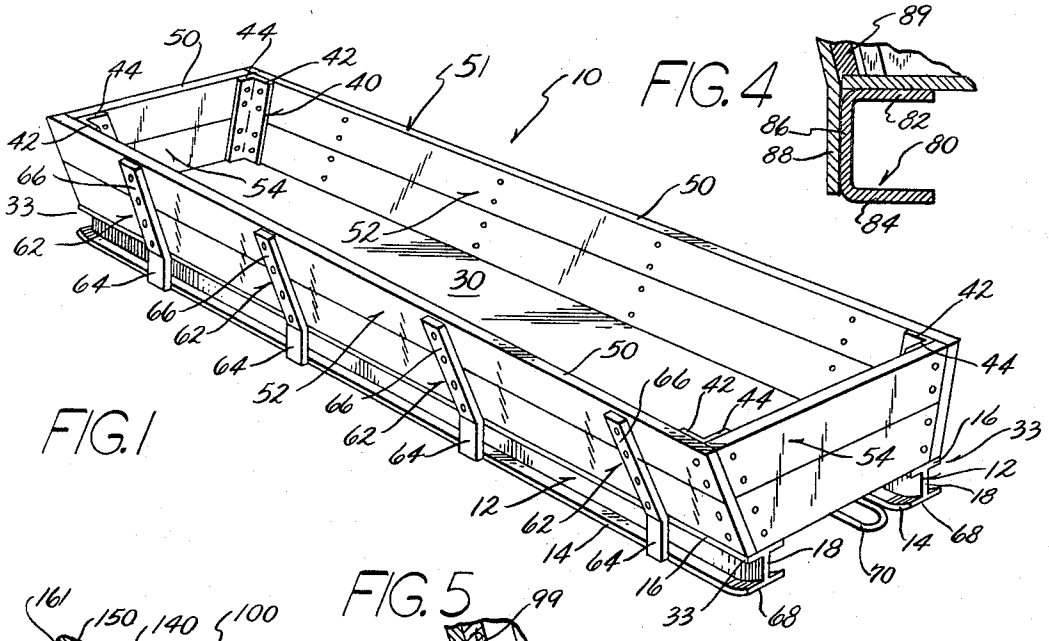


FIG. 1

FIG. 4

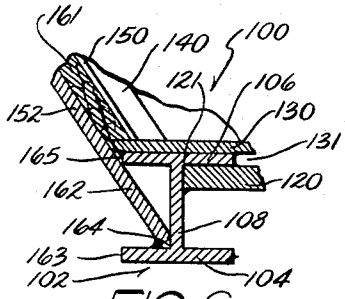


FIG. 6

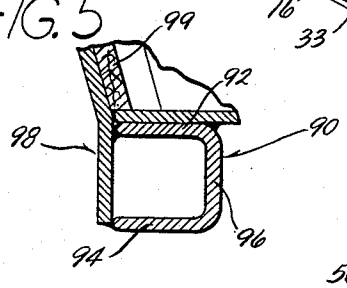


FIG. 5

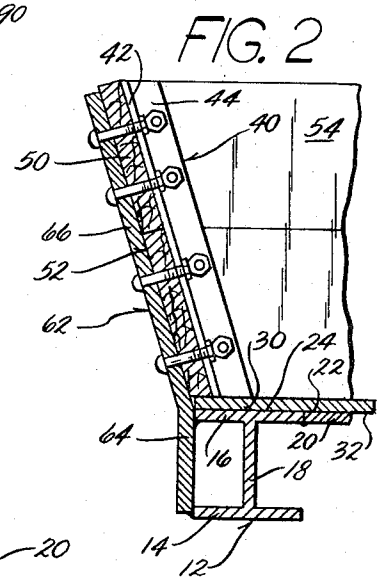


FIG. 2

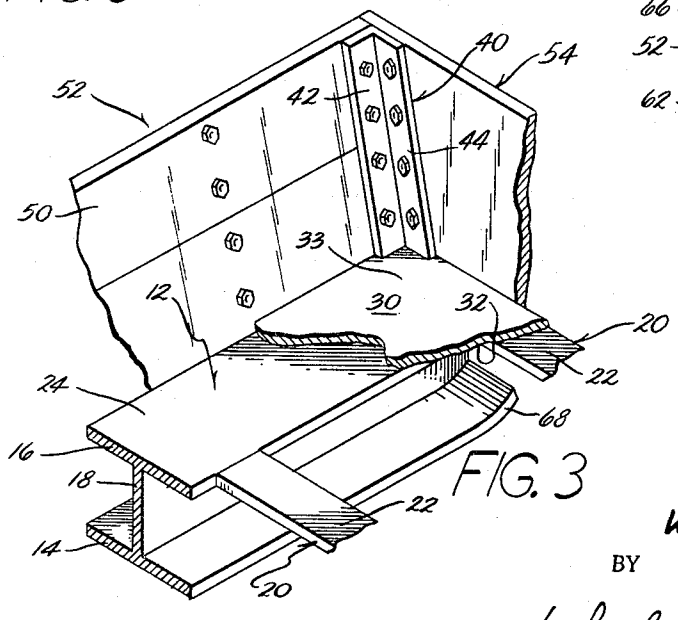


FIG. 3

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FEED BUNK

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Disclosed herein is a feed bunk including a box, a channel shaped supporting member including a ground engaged flange, a box supporting flange, and a connecting flange, together with reinforcing members which strengthen the box sides and which are connected at spaced points on said members with each of two of said flanges and independently of the other of said flanges.

This invention relates to feed bunks and, more particularly, to portable feed bunks.

An important object of the present invention is to provide a feed bunk which can be easily moved from one place to another and which is sturdy and strong enough to withstand rough handling and other abuses during use and transportation. In accordance with the invention, the feed bunk includes a pair of supporting members each having a ground engaging flange and a supporting flange. An open box having outwardly inclined sides is fixedly carried on the supporting flanges of the respective supporting members. A series of spaced reinforcing members are respectively connected to the ground engaging and supporting flanges of the supporting members and to the sides of the box.

Other objects and advantages will become apparent from the following description and the accompanying drawings in which:

FIGURE 1 is a perspective view of a feed bunk showing various of the features of the invention;

FIGURE 2 is a fragmentary sectional view, on an enlarged scale, of the feed bunk shown in FIGURE 1;

FIGURE 3 is a perspective view, on an enlarged scale, with parts broken away and in section, of a portion of the feed bunk shown in FIGURE 1;

FIGURE 4 is a sectional view of a portion of a feed bunk showing a modified form of the invention;

FIGURE 5 is a sectional view of a portion of a feed bunk showing another modified form of the invention; and

FIGURE 6 is a sectional view of a portion of a feed bunk showing still another modified form of the invention.

Referring to FIGURE 1, the feed bunk **10** includes a pair of supporting members in the form of H-beams **12** each having a ground engaging flange **14** and a supporting flange **16** connected in parallel relation to each other by a connecting web or part **18**. The H-beams are connected in spaced, parallel relation to each other by means of one or more cross members **20** disposed transverse of the H-beams **12** and having ends respectively fixed to the supporting flanges of the H-beams **12**. As shown in FIGURE 3, the upper surfaces **22** of the cross members **20** are disposed in coplanar alignment with the upper surfaces **24** of the supporting flanges **16**, for reasons to be hereinafter discussed.

A flat, rectangular plate **30** is carried on the supporting flanges **16** of the H-beams **12** with a portion of the under surface **32** of the plate **30** bearing against the upper surfaces **24** of the supporting flanges **16**. The plate **30** is generally coextensive with the rectangular area enclosed between the outermost corners **33** of the H-beams **12**. The coplanar alignment of the cross members **20** with the supporting flanges **16** (as described above) affords further support of the plate **30**.

An angle iron **40** having angularly related flanges **42** and **44** is fixed at each corner of the plate **30**, as by welding or other suitable connecting means. The angle irons **40** are disposed so that the flanges **42** are obliquely outwardly angularly related to the plate **30**, and the flanges

44 are in planes normal to the plate **30** and transverse of the H-beams **12**.

Wooden planks **50** are respectively fixed, as by bolts or other suitable fastening means to the correspondingly aligned flanges **42** and **44**. The wooden planks **50** in conjunction with the plate **30** define an open box **51** having sides **52** which are oppositely, outwardly inclined relative to the plate **30**, and sides **54** which are perpendicularly related to the plate **30**. If desired, the sides **54** can also be oppositely, outwardly inclined relative to the plate **30** by disposing the flanges **44** in oblique angular relation to the plate **30**.

The sides **52** are reinforced by a series of spaced, angularly bent, reinforcing members **62**. The reinforcing members **62** include first portions or legs **64** which are respectively connected, as by welding or other suitable means, to the supporting flanges **16** and the ground engaging flanges **14** of the H-beams **12** (as best shown in FIGURE 2). The reinforcing members **62** also include second portions or legs **66** respectively connected, as by bolts or other suitable connecting means, to the planks **50** which form the sides **52** of the feed bunk **10**. The first and second portions **64** and **66** respectively of each reinforcing member **62** are suitably angularly related to each other to accommodate the outward inclination of the sides **52** of the feed bunk **10**.

The ground engaging flanges **14** of the H-beams **12** are disposed to contact the ground and afford relatively easy sliding of the bunk along the ground. The opposite ends **68** of the ground engaging flanges **16** of the H-beams **12** are upwardly, inclined relative to the ground to facilitate sliding of the bunk **10** along the ground. Also, pulling means in the form of a hook or eyelet **70** is connected to the opposite ends of the plate **30** and between the H-beams **12** for removably attaching a chain or other means (not shown) to the feed bunk **10** when the bunk is to be moved or transported.

This invention contemplates the use of any type of supporting members having ground engaging flanges and supporting flanges, which flanges are connected to each other by means of connecting webs or parts. In an alternative construction, shown in FIGURE 4, the feed bunk includes a pair of oppositely disposed, inwardly facing, spaced, parallel channel beams **80** each having flanges **82** and **84** connected in spaced, parallel relation to each other by connecting webs or parts **86**. The reinforcing members **88**, which are similar to the reinforcing members **62**, previously described, are connected to the flanges **82** and **84** and to the wooden planks **89** in the same manner as previously described. This invention also contemplates oppositely disposed outwardly facing, spaced, parallel channel beams **90** (shown in FIGURE 5) or box beams (not shown) having flanges, or members, **92** and **94** connected to each other by connecting web or part **96**. The reinforcing members **98** are connected to the flanges **92** and **94** and to the wooden planks **99** in the same manner as previously described, and as shown in FIGURE 5.

In the alternative construction shown in FIGURE 6, the feed bunk **100** is similar to the feed bunk **10** previously described and includes a pair of supporting members in the form of H-beams **102** (only one is shown) each having a ground engaging flange **104** and a supporting flange **106** connected in parallel relation to each other by a connecting web or part **108**. The H-beams are connected in spaced parallel relation to each other by means of one or more cross members **120** disposed transversely of the H-beam and having ends respectively disposed in a corner **121** formed by the joinder of the underside of the supporting flange **106** and the connecting web **108**. The cross members **120** are fixed to the H-beams **102** by any suitable means, such as welding.

A flat, rectangular plate **130** is carried on the supporting flanges **106** of the H-beams **102**. A gap or space **131** is provided between the rectangular plate **130** and the cross members **120**. The angle irons **140** and the wooden planks **150** are constructed in a similar manner as are the angle irons **40** and wooden planks **50** (previously described).

The sides **152** of the feed bunk **100** are reinforced by a series of spaced, reinforcing members **162** suitably connected to the planks **161** which form the sides **152**. The reinforcing members **162** are disposed in angular relation to the H-beams **102** with the one end of each reinforcing member fixed, as by welding or other suitable means, at a point spaced from a longitudinal edge **163** of the ground engaging flange **106** and preferably in a corner **164** formed by the joinder of the ground engaging flange **104** and the web **108**. The reinforcing members **162** are also respectively fixed, intermediate the ends thereof, to a longitudinal edge **165** of the supporting flanges **106**, as by welding or other suitable means. If desired, the member **162** can also be fixed to the plate **130**, as by welding. Disposition of the reinforcing member **162** in the manner described above affords suitable angular inclination of the member **162** to provide suitable outward inclination of the sides **152** of the feed bunk **100**. The inclination afforded the members **162** by connecting the ends of members **162** at the corners **163** can be varied as by connecting the ends of members **162** at points spaced from the corners **163**, such as at various points along the web **108** or along the ground engaging flange **104**. However, the preferred and strongest construction is obtained by connecting the ends of members **162** at the corners **163**, as shown in FIGURE 6.

The above-described construction is the most preferable because it eliminates the bending of the previously described reinforcing members **62**. Use of the straight reinforcing member, therefore, facilitates easy construction and assembly of the feed bunk **100**.

Various of the features of the invention are set forth in the following claims.

What is claimed is:

1. A feed bunk comprising a pair of H-beams each having a ground engaging flange and supporting flange, one or more cross members connecting said H-beams in spaced, parallel relation to each other, a rectangular plate carried on said supporting flanges of said H-beams, an angle iron having angularly related flanges and disposed at each corner of said plate, said angle irons being obliquely outwardly angularly related to said plate, wooden planks respectively fixed to said flanges of said angle irons to define the sides of said bunk, a series of spaced angularly-bent reinforcing members disposed along opposite sides of said bunk, said reinforcing members having respective first portions connected to said ground engaging and supporting flanges of said H-beam and second portions connected to said planks.

2. A feed bunk in accordance with claim **1**, wherein opposite ends of said ground engaging flanges of said respective H-beams are arcuately, upwardly bent to facilitate sliding of said feed bunk along the ground.

3. A feed bunk in accordance with claim **2**, including pulling means connected to said plate at opposite ends of said bunk to facilitate connection to said bunk for sliding of said bunk along the ground.

4. A feed bunk comprising a pair of channel beams respectively having ground engaging flanges and supporting flanges, one or more cross members connecting said channel beams in opposed, spaced, parallel relation to each other, a rectangular plate carried on said supporting flanges of said channel beams, an angle iron having angularly related flanges and disposed at each corner of said plate, said angle iron being obliquely outwardly angularly related to said plate, wooden planks respectively fixed to said flanges of said angle irons to define the sides of said bunk, a series of spaced angularly bent reinforcing members disposed along oposite sides of said bunk, said reinforcing members having respective first legs connected to said ground engaging and supporting flanges of said channel beams and second legs connected to said planks.

5. A feed bunk comprising a pair of beams respectively having ground engaging members and supporting members, one or more cross members connecting said beams in spaced, parallel relation to each other, a rectangular plate carried on said supporting members on said beams, an angle iron having angularly related flanges and disposed at each corner of said plate, said angle iron being obliquely outwardly angularly related to said plate, wooden planks respectively fixed to said flanges of said angle irons to define the sides of said bunk, a series of spaced angularly bent reinforcing members disposed along opposite sides of said bunk, said reinforcing members having respective first legs connected to said ground engaging and supporting members of said beams and second legs connected to said planks.

6. A feed bunk comprising a pair of supporting members each having a ground engaging flange including a longitudinal edge and a supporting flange including a longitudinal edge, said ground engaging and supporting flanges being connected in spaced parallel relation to each other by a connecting part, one or more cross members connecting said supporting members in spaced parallel relation to each other, a rectangular plate carried on said supporting flanges of said supporting members, and an angle iron having acutely angularly related flanges and disposed at each corner of said plate, said angle iron being obliquely outwardly angularly related to said plate, wooden planks respectively fixed to said flanges of said angle irons to define the sides of said bunk, and a series of spaced reinforcing members disposed along opposite sides of said bunk, said reinforcing members being respectively connected to said ground engaging flange at a point spaced from said longitudinal edge of said ground engaging flange, and to said longitudinal edge of said supporting flange, said reinforcing members also being connected to said wooden planks.

7. A feed bunk comprising an under frame including a pair of supporting members each having a ground engaging flange and a supporting flange connected in spaced parallel relation to each other by a connecting flange, and cross members secured to said supporting members so as to locate said supporting members in spaced parallel relation to each other, a box having sides and mounted adjacent the sides thereof on said supporting flanges, and, at each side of said box, a re-enforcing member having a first portion connected at spaced points thereon to two of said flanges independently of the third of said flanges, and a second portion extending from proximate to said adjacent supporting flange in engaged parallel relation to the adjacent side of said box.

8. A feed bunk in accordance with claim **7** wherein said re-enforcing member extends for substantially the height of said adjacent side and terminates at a first point located below a second point located above the top of said adjacent side.

9. A feed bunk comprising a pair of spaced generally parallel supporting members each having a ground engaging flange and a supporting flange connected in spaced parallel relation to each other by a connecting flange, a box having outwardly inclined sides and mounted adjacent the sides thereof on said supporting flanges, and, at each side of said box, a re-enforcing member having a first portion connected at spaced points thereon to two of said flanges independently of the third of said flanges, and a second portion extending from proximate to said adjacent supporting flange in engaged parallel relation to the adjacent side of said box.

10. A feed bunk in accordance with claim **9** wherein said re-enforcing member extends for substantially the height of said adjacent side and terminates at a first point located below a second point above the top of said adjacent side.

11. A feed bunk comprising a pair of spaced generally parallel supporting members each having a ground engaging flange and a supporting flange connected in spaced parallel relation to each other by a connecting flange, a box having outwardly inclined sides and mounted adjacent the sides thereof on said supporting flanges, and, at each side of said box, a re-enforcing member having a first portion connected at spaced points thereon to said ground engaging and said supporting flanges independently of said connecting flange, and a second portion bent with respect to said first portion and extending from proximate to said adjacent supporting flange in engaged parallel relation to the adjacent side of said box.

12. A feed bunk in accordance with claim **11** wherein said re-enforcing member extends for substantially the height of said adjacent side and terminates at a first point located below a second point located above the top of said adjacent side.

13. A feed bunk comprising a pair of spaced generally parallel supporting members each having a ground engaging flange and a supporting flange connected in spaced parallel relation to each other by a connecting flange,

said ground engaging flange and said connecting flange forming a corner, a box having outwardly inclined sides and mounted adjacent the sides thereof on said supporting flanges, and, at each side of said box, a generally rectilinear re-enforcing member having a first portion connected, at spaced points thereon, to said supporting flange and to said corner, and a second portion extending from proximate to said adjacent supporting flange in engaged parallel relation to the adjacent side of said box.

14. A feed bunk in accordance with claim **13** wherein said re-enforcing member extends for substantially the height of said adjacent side and terminates at a first point located below a second point located above the top of said adjacent side.

References Cited

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