W. F. JACOBS.

BARN DOOR TRACK.

APPLICATION FILED AUG. 21, 1913.

1,090,541.

Patented Mar. 17, 1914.

Fig. 1.

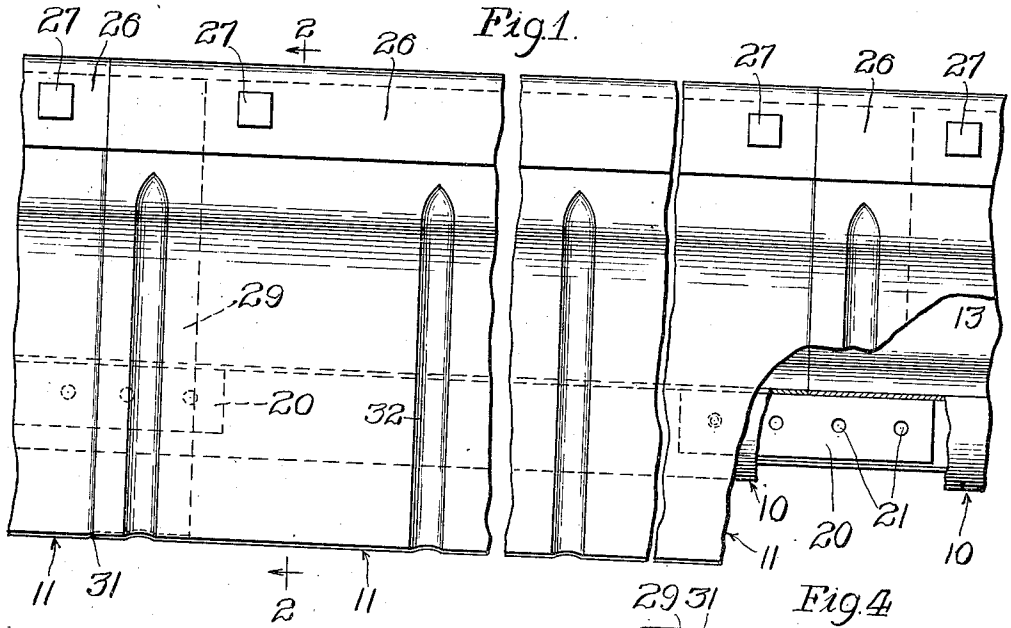


Fig. 2.

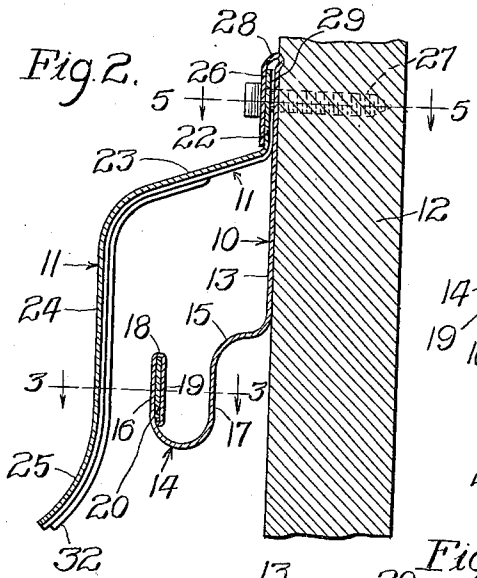


Fig. 4

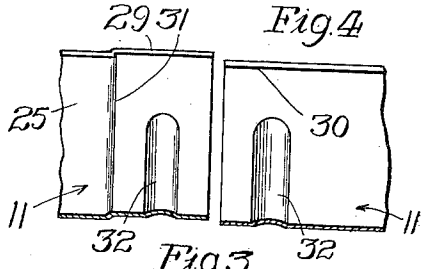


Fig. 3.

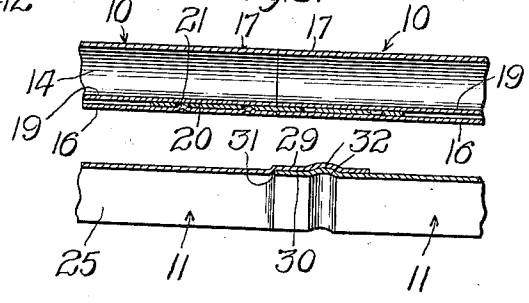
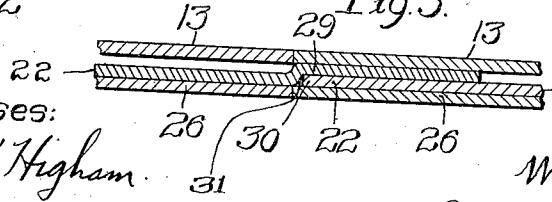


Fig. 5.



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BARN-DOOR TRACK.

1,090,541. Specification of Letters Patent. Patented Mar. 17, 1914.

Original application filed February 15, 1913, Serial No. 748,548. Divided and this application filed August 21, 1913. Serial No. 785,831.

To all whom it may concern:

Be it known that I, WILLIAM F. JACOBS, a citizen of the United States, and a resident of Ottawa, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Barn-Door Tracks; and I do hereby declare the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to barn door tracks, and more particularly to that type of such devices of the storm-proof kind.

A barn door track of the kind to which the invention relates, comprises a door hanger made of sheet metal and a hood or shield made of sheet metal, both parts being adapted to be secured to the wall of the building with said hood or shield extending over and constituting a protective covering for the track member.

Among the objects of the invention is to improve the construction of the kind of barn door tracks above referred to in the several particulars as will hereinafter appear, and to provide particular improvements in the track member, so that an integral portion thereof will extend over the upper edge of the hood and serves to prevent the entrance of water between the upper end of the track member and hood.

A track member embodying the features of the invention is folded upon itself at its upper edge to provide a fold of metal that may be forced against and embedded in the wall of the building to which the barn door track is secured and thus form a joint that will serve to prevent the water from entering between the track member and the wall.

The invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a front elevational view of a barn door track constructed in accordance with my invention, a portion of the hood or shield being broken away to show the track portions therebehind; Fig. 2 is a transverse sectional view taken on line 2—2 of Fig. 1; Fig. 3 is a fragmentary horizontal sectional view taken on line 3—3 of Fig. 2; Fig. 4 is a fragmentary top plan view of the two hood or shield sections separated, and in position to be assembled with their end marginal portions in overlapping engagement with each other; and Fig. 5 is a fragmentary sectional view taken on line 5—5 of Fig. 2.

The barn door track, as shown in the accompanying drawings and as embodying the several features of my invention, comprises in the main two parts, namely, a track portion or hanger supporting member 10 and a hood or shield 11 adapted to extend over and form a protecting covering for the track member. The track member 10 and the hood or shield 11 are adapted to be secured to the wall 12 of a building over the opening to be closed by the door. The track member 10 is provided with a portion constituting the rail upon which the rollers of the door hanger rest and travel. For the purpose of convenience in shipment and manipulation, the completed barn door track is made up of a plurality of sections, each section being of a convenient length and comprising a track and hood member. Both members are made of sheet metal. Each section is joined end to end to the next adjacent section and all of the sections, when joined, go to make up a continuous barn door track. The track and hood members of each section are secured together in a way, to be hereinafter described, that will prevent the passage of water between such parts, and said track member is so constructed as to prevent the passage of water between the same and the wall. When the several sections are secured to the wall and said sections are joined end to end, the device is strongly united and forms a rigid and uniform bearing surface for the rollers of the door hanger as well as an effective protective covering for the same.

Referring now to the several figures of the drawings which illustrate in detail the several parts of the device, the track member 10 of each section is formed of a single strip of sheet metal bent transversely in to the form shown in Fig. 2. As shown in said Fig. 2, the main portion 13 of said track member 10 is flat and is adapted to be secured in vertical position against the wall 12 of a building above the opening to be closed by the door (not shown). The lower longitudinal marginal portion 14 of said track member 10 is bent substantially U-shaped in

cross-section and is connected with the said flat main portion 13 by a portion 15 bent to extend outwardly from said main portion 13. Said portion 15 is integral with both the main and U-shaped portions 13 and 14, respectively, and is bent transversely so as to have a slight reverse curve therein. Said portion 15 spaces the U-shaped portion 14 from the wall 12, as shown in said Fig. 2. The portion 14, by reason of being bent in the form shown, embraces an outer and inner upright part 16 and 17 respectively. The outer upright part 16 forms the track proper and is provided with an upwardly facing bearing surface 18 on which rests and travels the grooved wheels or rollers of the door hanger (not shown). Said upright part 16 is longitudinally stiffened or strengthened by means of a longitudinally extending flat stiffening strip 19, arranged parallel with and united along its upper end with said upright part 16. As shown in said Fig. 2, said strip 19 is formed by bending said part 16 upon itself inwardly and vertically downward so that a double thickness of sheet metal is obtained. The metal at the fold of said parts constitutes the bearing surface 18. In bending the upright part 16 to form the stiffening strip 19 a vertical space is formed between the adjacent inner surfaces of said parts 16 and 19, as shown in Figs. 2 and 3.

In order to connect the abutting ends of adjacent track members together and maintain the upright members 16 of each track section in alinement so that the track portion or bearing surface 18 will be continuous and unbroken a joint piece 20 is provided. Said joint piece 20 is, preferably, in the form of a flat strip of metal, and the end portions thereof occupy the vertical spaces between the parts 16 and 19 at the meeting ends of abutting track sections. Said joint piece 20 is rigidly secured to at least one of the track sections 10, which it joins, by punching the metal of the part 16 into the holes 21 in said joint piece. So much of the construction above described with respect to the parts 16 and 19, the fold of metal constituting the bearing surface 18 and the joint piece 20, constitutes the subject matter of my pending application, filed February 15, 1913, and bearing Serial No. 748,548.

Each hood or shield section 11 is made from a strip of sheet metal bent or pressed into the form shown in the drawings. (See Fig. 2.) As shown, the upper portion 22 of said hood is vertically disposed, flat and is adapted to lie against the main portion 13 of said track member 10 adjacent to its upper edge. Said hood 11 below the upper portion 22 is bent both outwardly and slightly downward, as indicated by 23, and thence bent downwardly throughout the portion 24 which is vertically disposed and is substantially parallel to the flat portion 13 of said track member 10. Below the vertical portion 24 said hood is bent or curved outwardly as indicated at 25. The lower edge of said hood 11 terminates below the track member 10, as shown in Fig. 2. The hood is bent so as to readily shed water.

In order to secure the track member 10 and the hood 11 together, the upper longitudinal margin portion of the main part 13 of said track member 10 is bent or folded upon itself outwardly and vertically downward to provide a longitudinally extending portion 26 which extends over and overlaps the upper portion 22 of said hood lying against the upper part 13 of said track member 10. (See Fig. 2.) By bending the upper portion of the track member 10 upon itself a vertical space is provided between the parts 13 and 26 into which the upper portion 22 of said hood 11 is inserted. The upper edge of said part 22 terminates short of the fold of metal 28 connecting the portions 13 and 26, and by reason of this fact the parts 13 and 26 extend above the upper edge of said part 22, the purpose of which will presently appear. The track member 10 and hood 11 are secured to the wall 12 by fastening members 27, 27, preferably, in the form of screws. Said screws 27, 27, are inserted through the folded parts 13 and 26 and the part 22 therebetween and then into the wall 12. Said screws pass through two thicknesses of metal of the track member and one thickness of metal of the hood. The fold of metal 28 incloses the upper edge of said part 22 and is adapted to prevent water from entering between the contacting surfaces of said part 22 and the portions 13 and 26, respectively. By reason of the fact that the fold of metal extends above the upper edge of the portion 22, as above mentioned, and as shown in Fig. 2, that portion of said metal at the fold and immediately below the same is adapted to be bent or forced inwardly against and slightly embedded in the wall 12, thereby, forming a joint between the upper edge of the track member 10 and the wall 12 and is adapted to prevent the passage of water therebetween.

Each hood or shield 11 is longer than its associated track member and the end marginal portion 29 of each hood or shield extends beyond the adjacent end of the track member and is offset inwardly and overlapped by the end marginal portion 30 of the next adjacent hood. The opposite end edge of the same hood is opposite the adjacent end edge of the associated track member. By offsetting the end portion 29 of each hook inwardly, as shown in Figs. 3, 4 and 5, a shoulder 31 is provided against which the edge of the end portion 30 of the next adjacent hood is adapted to abut when two adja-

cent hood sections are in overlapping engagement. Said shoulder 31 serves to prevent endwise movement of the hood with respect to its track member. When the sections are assembled, the offset end portion 29 of one hood 11 extends into the vertical space between the folded parts 13 and 26 of the track member 10 of the next adjacent section and is overlapped in such space by the end portion 30 of said next adjacent hood. (See Fig. 5.) A portion of the metal of each of the end portions 29 and 30, respectively, is struck inwardly to form an inwardly extending vertical rib or head 32. Said heads 32 are arcuate in cross-section and form grooves on the outer face of the end portions 29 and 30 of the hood. When said end portions 29 and 30 overlap, said heads 32 interfit and serve to prevent the passage of water between the overlapping marginal portions of said hoods.

The several sections of the barn door track are assembled in position against the wall 12 above the door opening therein in the following manner: The track member 10 of one section with its projecting hood or shield 11 is placed with the flat portion 13 against the wall 12 of the building and said track and hood members are secured to said wall by the screws 27, 27. The next section is placed in position against the wall in edgewise abutting relation with the first mentioned section and secured to the wall by screws 27. The joint piece 20 extends from one track member of one section in the form of a tongue, and is secured to the end of the abutting track member of the next adjacent section by being inserted into the vertical space between the folded portions 16 and 19 of said abutting track member in the manner hereinbefore described. The joint piece 20 provides a rigid connection between the abutting track member 10 and serves to maintain the abutting ends of the adjacent track members in alinement with each other. The inwardly offset end portion 29 of the hood 11 of one section is overlapped by the adjacent end portion 30 of the hood of the next adjacent section with the beads 32 interlocking. In addition to the functions ascribed to said beads 32, 32, the same also serve to prevent longitudinal movement of one hood section relatively to each other and also serve to stiffen the metal at the ends of each hood transversely. Each section is put up and interlocked with the adjacent section in the manner above described until the entire barn door track is complete. Said screws 27, 27, hold the flat portion 13 of each track member 10 against the wall 12 and when screwed home causes the folded portion 26 to be drawn tightly throughout its length firmly in contact with the upper portion 22 of the hood 11. The fold of metal 28 throughout the length of each section is forced inwardly against and embedded in the wall 12, thereby providing a joint between the track member and the wall that will prevent the passage of water between the upper end of the track member and the wall. The fastening screws 27, 27, are located adjacent to the ends of the sections and at either side of the overlapping marginal portions 29 and 30 of each hood 11. Said screws 27, 27 pass through two thicknesses of metal of the track member 10 and through one thickness of metal of the hood or shield 11.

It is to be understood that the barn door track structure above described and shown in the accompanying drawings may be changed or variously modified in its details of construction and arrangement of parts without departing from the spirit of my invention, and I do not wish to be limited to the particular details of construction and arrangements of parts illustrated, except in so far is specified in the appended claims.

I claim as my invention:

1. A barn door track structure comprising a sheet metal track member adapted to be secured to the wall of a building, said track member having a portion in contact with the wall and supporting the track portion, said portion in contact with the wall having its upper marginal portion folded upon itself to permit a fold of metal at its upper edge, and a hood secured to said track member.

2. A barn door track structure, comprising a sheet metal track member adapted to be secured to the wall of a building, said track member having its upper marginal portion folded upon itself to provide a fold of metal at its upper edge, said fold of metal at the upper edge of said track member being bent inwardly and adapted to be embedded in said wall, and a hood secured to said track member.

3. A barn door track structure, comprising a sheet metal track member adapted to be secured to the wall of a building, said track member having its upper marginal portion folded upon itself outwardly and downwardly to provide a vertical space between such folded parts, a hood for said track member having its upper portion inserted in said vertical space, and means for securing said track and hood members to the wall.

4. A barn door track structure comprising sheet metal track and hood members adapted to be secured to the wall of a building, one of said members having its upper marginal portion bent upon itself to provide a vertical space between said folded parts, the other of said members having its upper portion inserted in said vertical space, and means for securing said track and hood members to the wall.

5. A barn door track structure comprising sheet metal track and hood members adapted to be secured to the wall of a building, one of said members having its upper marginal portion folded upon itself to provide a fold of metal at the upper edge, said fold of metal being bent inwardly and adapted to be embedded in said wall, the other of said members having its upper part inserted between said folded parts, and means for securing said track and hood members to the wall.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 18th day of August A. D. 1913.

WILLIAM F. JACOBS.

Witnesses:
E. J. CASSIDY,
WILLIS M. HAM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."