Dec. 3, 1968 G. A. FITZGERALD 3,413,773

SADDLE ANCHOR

Filed Oct. 7, 1966

FIG. 1

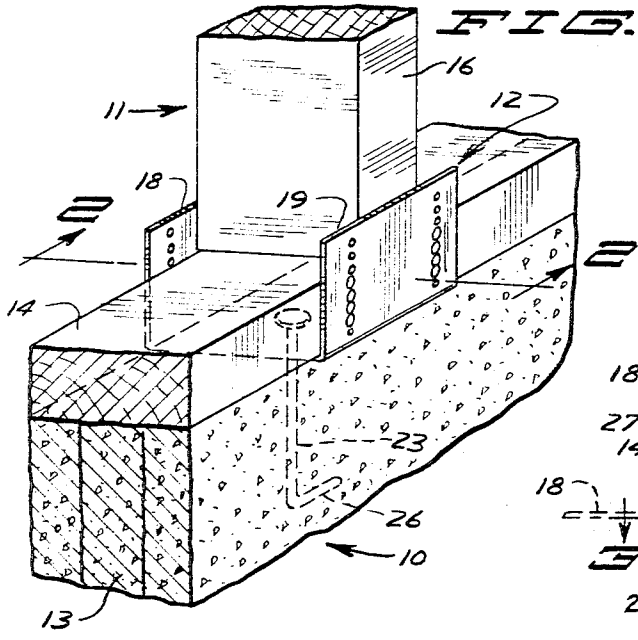
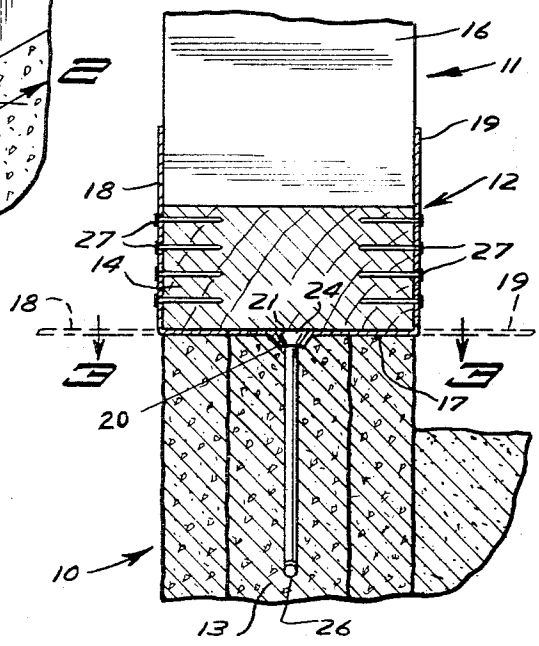


FIG. 2



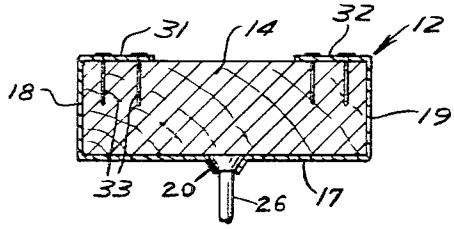


FIG. 5

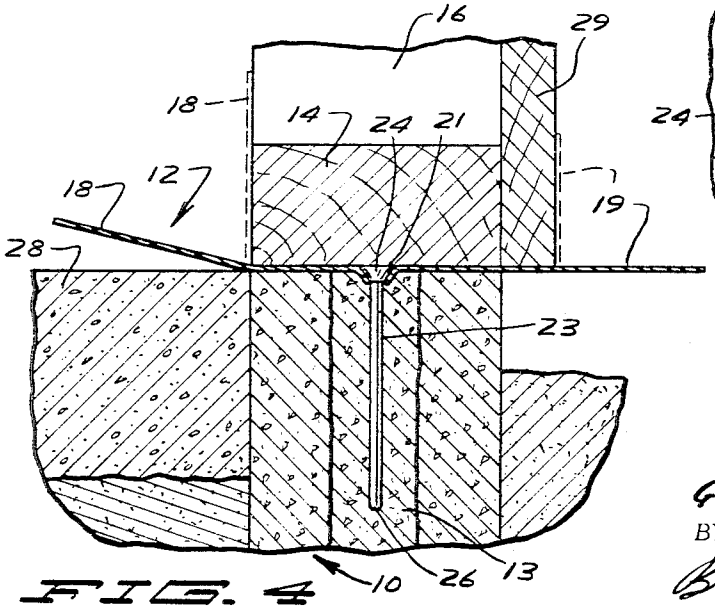


FIG. 4

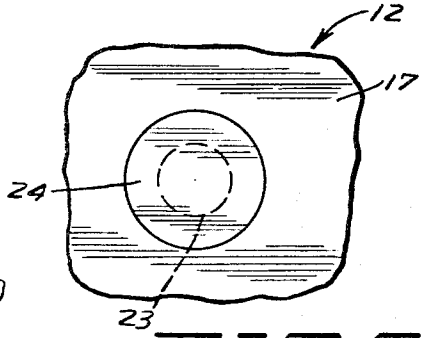


FIG. 3

INVENTOR.
GERALD A. FITZGERALD
BY
Braddock & Burd
ATTORNEYS

United States Patent Office 3,413,773 Patented Dec. 3, 1968

3,413,773

SADDLE ANCHOR

Gerald A. Fitzgerald, 4937 Drew Ave. S., Minneapolis, Minn. 55410

Filed Oct. 7, 1966, Ser. No. 586,334
4 Claims. (Cl. 52—713)

ABSTRACT OF THE DISCLOSURE

A sheet metal saddle anchor mounting a frame to the top of a concrete wall. An anchor bolt having a head entirely within the recess of the mid-portion of the anchor and a body with a terminating lateral leg embedded in the concrete attaches the saddle anchor to the concrete wall.

This invention relates to an anchoring assembly for holding a frame member to a support. More particularly, the invention is directed to a saddle anchor for attaching prefabricated building frame structure to the top of a concrete foundation wall.

Briefly described, the saddle anchor of the invention is used in conjunction with a concrete foundation wall to hold and stabilize the horizontal base plate of an upright side wall frame structure of a building. The saddle anchor being relatively simple in construction is easily mounted on the foundation wall at the time the concrete wall is poured, or if the wall is of cement block at the time the concrete is placed as core material within the concrete block.

The saddle anchor comprises a generally flat anchoring member which can be bent into a generally U-shape around the bottom and opposite sides of the horizontal base plate of the wall frame structure. A mid portion of the base of the saddle anchor has a downwardly projected recess formed with a hole open to the recess. Anchor bolt means having a head located entirely within the recess projects through the hole and is embedded in the concrete to hold the anchoring member in tight engagement with the top of the foundation wall. The bolt means has a neck projected through the hole in the member and a body embedded in the concrete. The entire head of the bolt means is located in the recess of the anchoring member so that the anchoring member lies flat on the top of the foundation wall. In addition, the depressed central portion of the base of the anchoring member prevents movement of the anchoring member in a lateral direction thereby keeping the wall frame in alignment with the foundation wall. The opposite flanges of the anchoring member are retained in engagement with the opposite sides of the base plate by driven fastening members, as nails, screws or the like.

In use, the flanges of the anchoring member are initially substantially coextensive with the midportion. The anchor bolt means is assembled with the member and together as a unit the anchor bolt and member are mounted on the foundation wall. The anchor bolt extends downwardly into the concrete to permanently attach the saddle anchor to the top of the foundation wall. After the base plate is positioned on the anchoring member the flanges are bent up and attached to opposite sides of the base plate with the driven fastening members. When the anchoring member is located between the upright studs of the wall frame, the end portions of the side flanges are bent over and secured to the top of the base plate thereby laterally and transversely clamping the base plate in the anchoring member.

In addition to providing a stable and secure anchor connection between the concrete foundation wall and the upright wall frame structure, the saddle anchor is versatile in use since it can be used with varying width

base plates and can be placed adjacent the outside of sheathing secured to the frame structure.

In the drawings:

FIGURE 1 is a fragmentary perspective view of a building foundation wall and side wall frame structure secured together with the saddle anchor of this invention;

FIGURE 2 is an enlarged sectional view taken along the line 2—2 of FIGURE 1;

FIGURE 3 is a sectional view taken along the line 3—3 of FIGURE 2;

FIGURE 4 is a view similar to FIGURE 2 showing the saddle anchor connecting a side wall with sheathing to a foundation wall; and

FIGURE 5 is a sectional view of the saddle anchor showing the side flanges in engagement with the top of the base plate.

Referring to the drawings, there is shown in FIGURE 1 an upright concrete foundation wall indicated generally at **10** carrying side wall frame structure **11**. A saddle anchor of this invention indicated generally at **12** is used to hold and secure the side wall frame structure on the top of the foundation wall. The foundation wall **10** may be a poured concrete wall having a flat top surface or a concrete block wall with some of the core openings filled with a concrete core **13**. The side wall frame structure **11** is preferably a prefabricated wood frame having a horizontal base plate **14** carrying a plurality of upright studs **16**.

Saddle anchor **12** of this invention is used to secure base plate **14** to the top of wall **10**. Saddle anchor **12** comprises a metal plate or anchoring member bent into a generally U-shape having a generally flat base **17** and opposite upright flanges **18** and **19**. The plate may be made from approximately eighteen gauge galvanized sheet metal and have a length of ten inches and a width of four inches. This plate is usable with a 2 x 4 base plate of the frame structure. The size of the plate of the saddle anchor as well as its thickness and material may vary with the size of the base plate **14** and strength requirements of the building.

As shown in FIGURE 2, the center portion of base **17** has a downwardly projected counter-sunk section **20** forming a cone shaped recess **21**. The bottom of the recess has a hole **22**. An anchor bolt **23** projected through hole **22** is embedded in concrete core **13** to permanently secure the anchoring member to the top of wall **10**. Bolt **23** has a cone shaped head **24** located entirely within recess **21** so that the flat top of the head does not interfere with the positioning of base plate **14** on the saddle anchor. Head **24** is substantially the same shape as cone shaped recess **21** so as to provide a relatively large area of engagement between head **24** and base **17**. This relatively flat anchoring member holds the base plate in engagement with the top of wall **10**. The lower end **26** of the embedded portion of bolt **23** bent normally to the axis of the bolt functions as a holding foot preventing the bolt from being withdrawn from the concrete core **13**.

The upright flanges **18** and **19** of the plate are disposed adjacent the opposite side of base plate **14** and project above the top surface of the plate. Driven fasteners **27**, as nails, screws or the like, are used to secure the flanges to the sides of plate **14**. As shown in FIGURE 5, when saddle anchor **12** is located on a portion of horizontal base plate **14** which does not have an upright stud, the upper portions **31** and **32** of the flanges are bent over and engage the top surface of the plate. This holds base plate **14** in a clamped relation in both a horizontal transverse direction and an upright direction. Fasteners **33**, as nails or screws or the like, are used to secure the inwardly directed portions **31** and **32** to the top of plate **14**.

FIGURE 4 illustrates another example of the versatility of saddle anchor **12**. A concrete floor **28** is located adjacent the inside of wall **10** with the top surface of the floor in alignment with the top of the wall. Flange **18** of the anchor **12** is bent upwardly to provide space to finish or trowel the concrete surface under the flange. A sheathing **29** is secured to the outside of plate **14** and studs **16**. This sheathing does not interfere with the stabilizing and securing function of the saddle anchor since flange **19** is bent in an upward direction adjacent the outside of sheathing **29** as shown in broken lines. In a similar manner, flange **18** is bent upwardly and secured to the opposite side of base plate **14** as shown in broken lines.

In use, a plurality of saddle anchors **12** are used around the top of the foundation wall to secure the side wall frame structure to the top of the foundation wall. Initially the anchor bolts **23** are assembled with base **17**. Bolts **23** along with the bottom side of base **17** are embedded in concrete **13** whereby base **17** is held in firm engagement with the top of wall **10**. The counter-sunk middle portion **20** lies below the top of the wall in engagement with the concrete thereby preventing lateral movement of saddle anchor **12** relative to the top wall.

To attach the side wall frame **11** to the top of the foundation wall, the frame structure is merely held in an upright position with the base plate **14** in alignment with the top of the foundation wall. With the frame structure in this position the opposite flanges **18** and **19** of the saddle anchor **12** are bent in an upright direction adjacent the opposite side of base plate **14**. Fasteners **17** are then inserted through suitable holes in flanges **18** and **19** and driven into the base plate to secure the flanges to the base plate **14**. As shown in FIGURE 5, outer portions **31** and **32** of flanges **18** and **19** are bent over and secured to the top of base plate **14** when the saddle anchor is located between the upright studs. When all of the anchor members are attached to the base plate the entire side wall frame structure is held against upright, lateral and rotational movement.

The form and size of the saddle anchor shown and described is of a preferred example of the invention. It is understood that various changes in size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention. The invention is defined in the following claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A saddle anchor for securing a frame structure having a base plate to a concrete body comprising: an anchor member having a flat base and upright side flanges bendable adjacent the sides of the base plate, said base including a midportion having a downwardly projected section forming a recess and a hole in the center of the downwardly projected section open to the recess, a single bolt means for securing the anchor member to the concrete body, said bolt means having a head located entirely within the recess, a neck projected through said hole, and a bolt body projected from the anchor member for embedding in the concrete body to secure the anchor member to the concrete body, said bolt body terminating in a laterally projected end portion.

2. The structure of claim **1** wherein the recess has a cone shape and the head has a cone shape of substantially the same size as the recess.

3. The saddle anchor of claim **1** wherein said anchor member is formed from a flat piece of sheet metal.

4. The structure of claim **1** wherein each side flange has a plurality of upright rows of spaced holes for accommodating fastening means connecting the anchor member to the base plate.

References Cited

UNITED STATES PATENTS

Re. 16,572	3/1927	White	52—713
1,587,355	6/1926	Raum	52—370
1,741,776	12/1929	Isaacson	52—370
2,723,822	11/1955	McGuire	52—698
2,920,477	1/1960	Shaw	52—715
3,109,260	11/1963	De Cesare	52—300
3,188,696	6/1965	Earhart	52—712

FOREIGN PATENTS

618,524	9/1935	Germany.

EDWARD C. ALLEN, *Primary Examiner.*