F. M. GEBHARD.

SCALE AND DIRT COLLECTOR.

APPLICATION FILED FEB. 23, 1921.

1,424,197.

Patented Aug. 1, 1922.

3 SHEETS—SHEET 1.

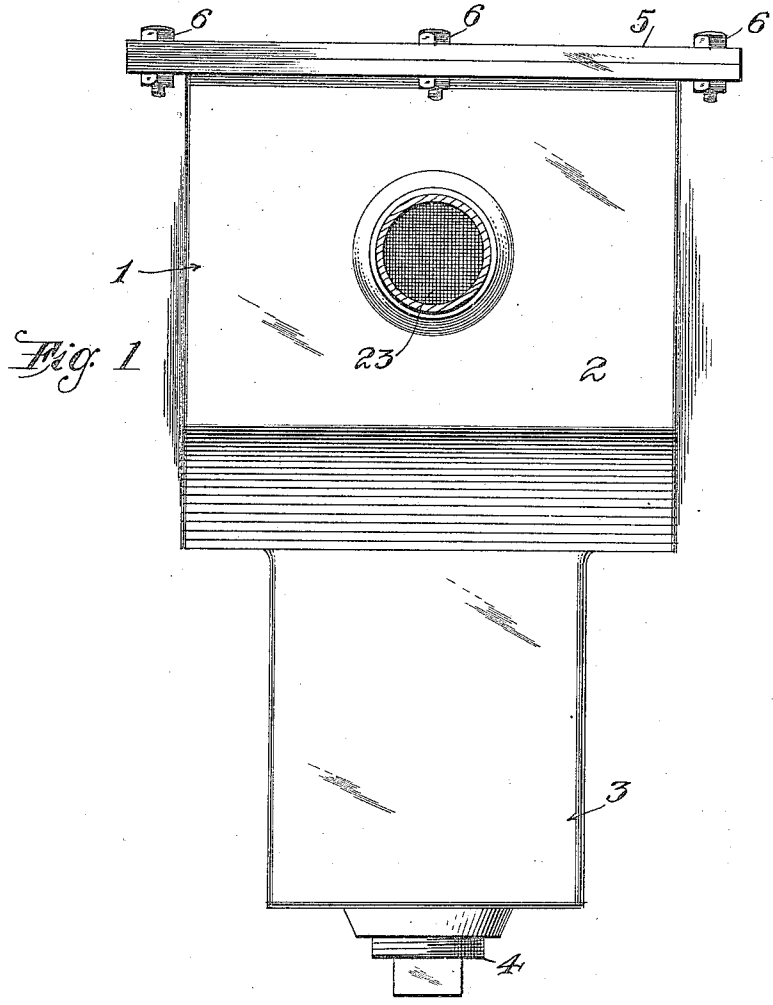


Fig. 1

INVENTOR.

Frank M. Gebhard

BY

E. G. Siggers & Co.

his ATTORNEYS

F. M. GEBHARD.

SCALE AND DIRT COLLECTOR.

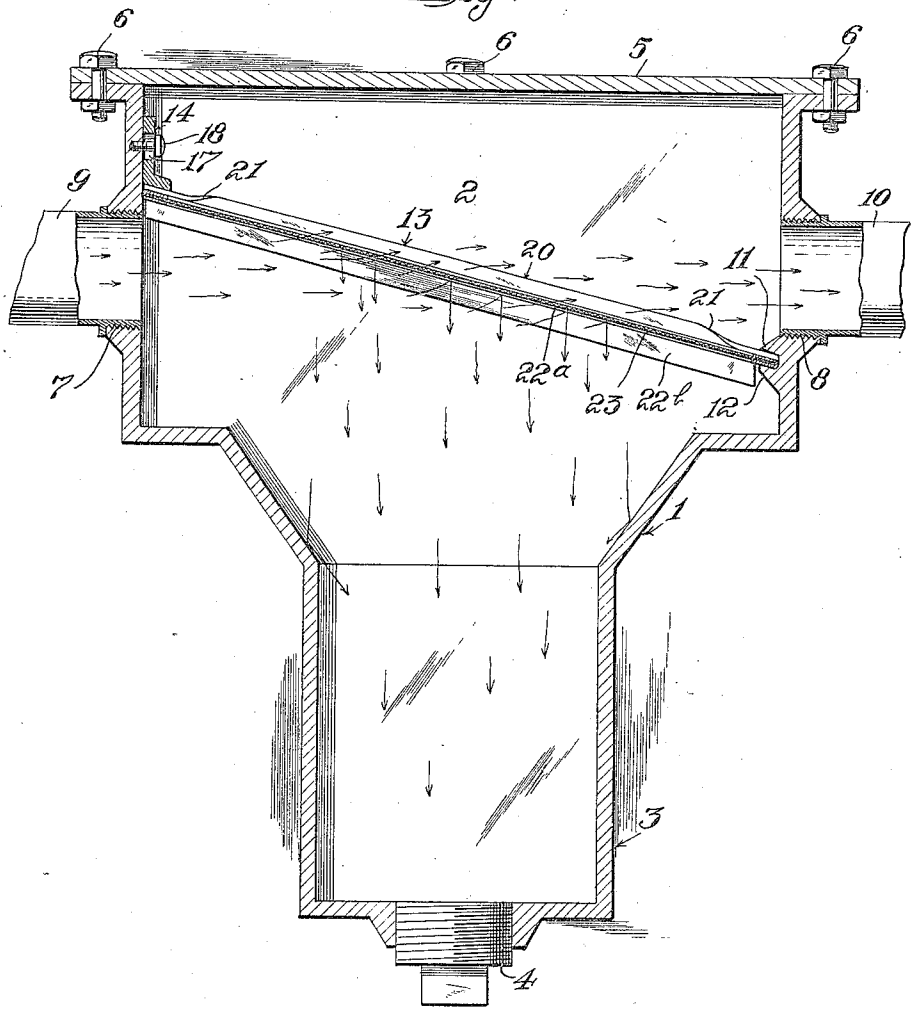
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3 SHEETS—SHEET 2.

Fig. 2



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3 SHEETS—SHEET 3.

Fig. 3

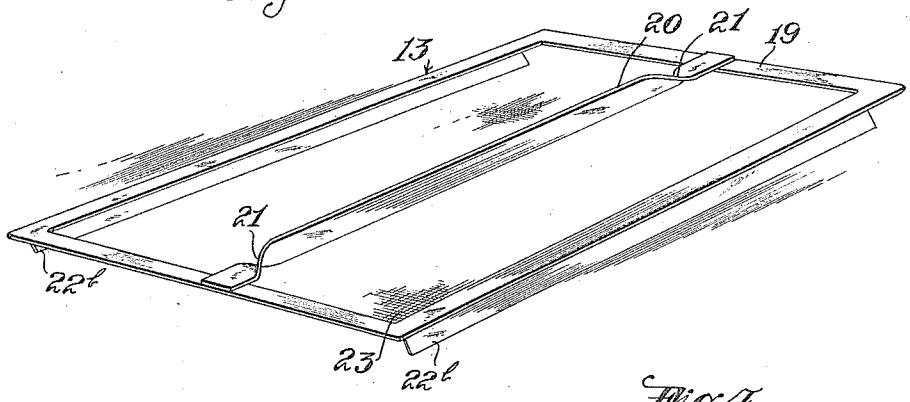


Fig. 4

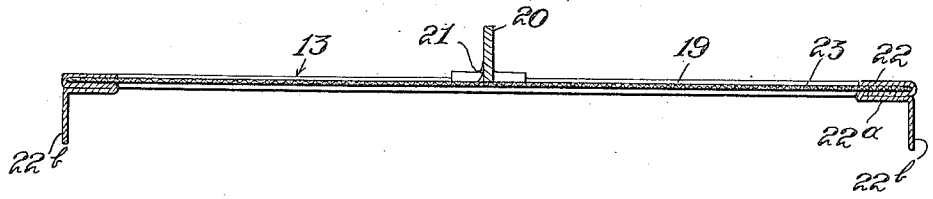


Fig. 5

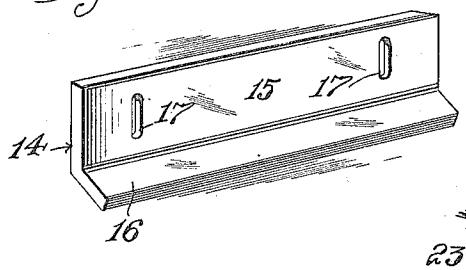
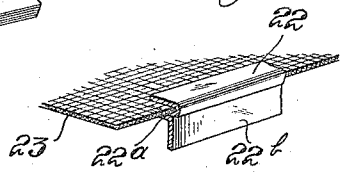


Fig. 6



Inventor

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UNITED STATES PATENT OFFICE.

FRANK M. GEBHARD, OF STEELE, NORTH DAKOTA.

SCALE AND DIRT COLLECTOR.

1,424,197. Specification of Letters Patent. Patented Aug. 1, 1922.

Application filed February 23, 1921. Serial No. 447,124.

To all whom it may concern:

Be it known that I, FRANK M. GEBHARD, a citizen of the United States, residing at Steele, in the county of Kidder and State of North Dakota, have invented certain new and useful Improvements in Scale and Dirt Collectors, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a scale and dirt collector, and the object of the invention is the construction of a simple and efficient collector for the purpose of straining the water on tractors between the motor and the radiator, so as to keep the radiator from clogging up with scales and dirt, because when engines have run for some time, or have been standing idle or still, the scales formed become dry and when the engine is started again, the scales become loose caused by vibration and flow of the water into the radiator, hence clogging the radiator, resulting in the engine becoming overheated and losing power, and causing much trouble.

Another object of the invention is the construction of a scale and dirt collector which can be used in any water line, resulting in the same efficient action.

With these and other objects in view, my invention comprises certain novel combinations, constructions and arrangements of parts as will be hereinafter described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a front view, in elevation, of a device constructed in accordance with the present invention, while

Figure 2 is a vertical, central section of the same.

Figure 3 is a perspective view of the screen, while

Figure 4 is a longitudinal section of the same.

Figure 5 is a perspective view of the detachable locking plate.

Figure 6 is a fragmentary, perspective view of the screen.

Referring to the drawings by numerals, 1 designates the casing having a central, body portion 2, and a depending reduced portion 3. The lower end of the depending portion 3 is closed by a threaded plug 4, which plug 4 enables the operator to remove the dirt and scales in the casing. A top plate or cover 5 is secured by bolts 6 upon the casing 1.

The casing 1 is provided with an inlet opening 7 and an outlet opening 8 (Fig. 2). Inlet pipe 9 extends into the opening 7, and outlet pipe 10 extends into the opening 8; these pipes 9 and 10 may be a part of any water line, as my device is adapted to be placed on any water line where it is desired to strain or clean the water passing therethrough.

Below the outlet opening 8 is an upper shoulder or lug 11, and a lower shoulder or lug 12; between these lugs 11 and 12 is placed the lower end of the screen 13; the upper end of the screen rests against the inner face of the casing above the inlet opening 7, so that the screen is retained in an inclined position, causing the liquid to pass through the screen in its travel to the outlet opening 8, and by inclining the screen, it is kept clean, as the dirt and scale have a tendency to fall or roll from the screen.

The locking plate 14 comprises a body portion 15 having an angular, depending portion 16; in the body portion 15 are elongated apertures 17, through which apertures extend the bolts 18. The locking plate 14 is vertically adjustable, so as to enable the base or depending portion 16 to clamp tightly against the upper portion of the screen 13, holding it snugly between the shoulders 11 and 12, and also in its set position within the casing 1, Fig. 2.

The screen 13 comprises, preferably, a rectangular frame 19 and the central, longitudinally-extending brace 20; the brace 20 is twisted at 21, causing the ends of the brace to rest flat upon the frame 19, whereas, the central portion is positioned at right angles to the ends for greatly stiffening and strengthening the brace, which brace prevents the screen from being bent or otherwise affected by the action of the liquid passing through the same. The sides of the frame 19 are formed of two portions in cross section; to wit, a U-shaped portion 22 between which the wire mesh 23 is secured, and with an angular portion 22^a having a depending flange 22^b; the flanges 22^b bear against or engage the side faces of the casing 1, producing a snug fit for preventing the liquid from passing between the edges of the screen and the casing; all the liquid must

pass through the wire mesh 23 of the screen 13.

While I have described the preferred embodiment of my invention, and have illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates, during the extensive manufacture of the same and I, therefore, reserve the right to make such alterations or changes as shall fairly fall within the scope of the appended claims.

What I claim is:

A screen for a filter of the class described, comprising a rectangular frame consisting of side and end bars, the end bars being flat, each side bar comprising an elongated section, which is U-shaped in cross section and an angular section engaging the U-shaped section and having a depending flange, a mesh screen carried by the frame and having its edges clamped within the U-shaped sections of said side bars, a brace extending longitudinally of said frame, said brace comprising a body portion having twisted ends, the ends resting evenly upon and being secured to the flat end bars of the frame, the body portion of the brace extending at right angles to said twisted ends, said bar engaging said mesh screen to reinforce the same as liquid flows therethrough, all as set forth.

In testimony whereof I hereunto affix my signature.

FRANK M. GEBHARD.