

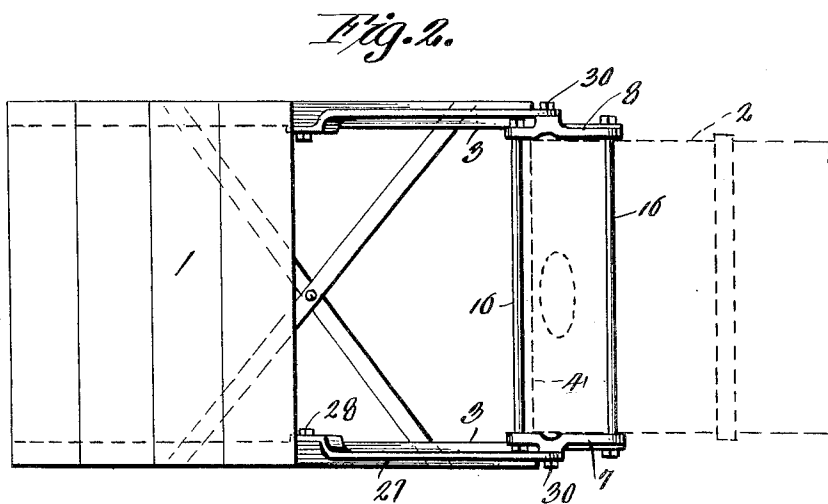
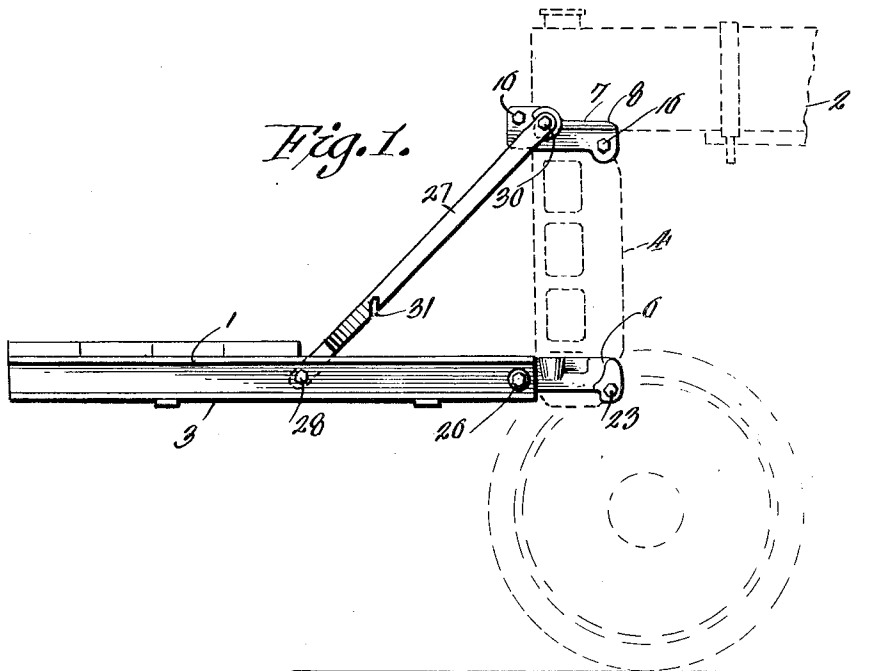
Aug. 28, 1928.

1,682,313

C. H. TURNER

ATTACHMENT FOR TRACTORS

Original Filed Dec. 6, 1924 3 Sheets-Sheet 1



WITNESSES

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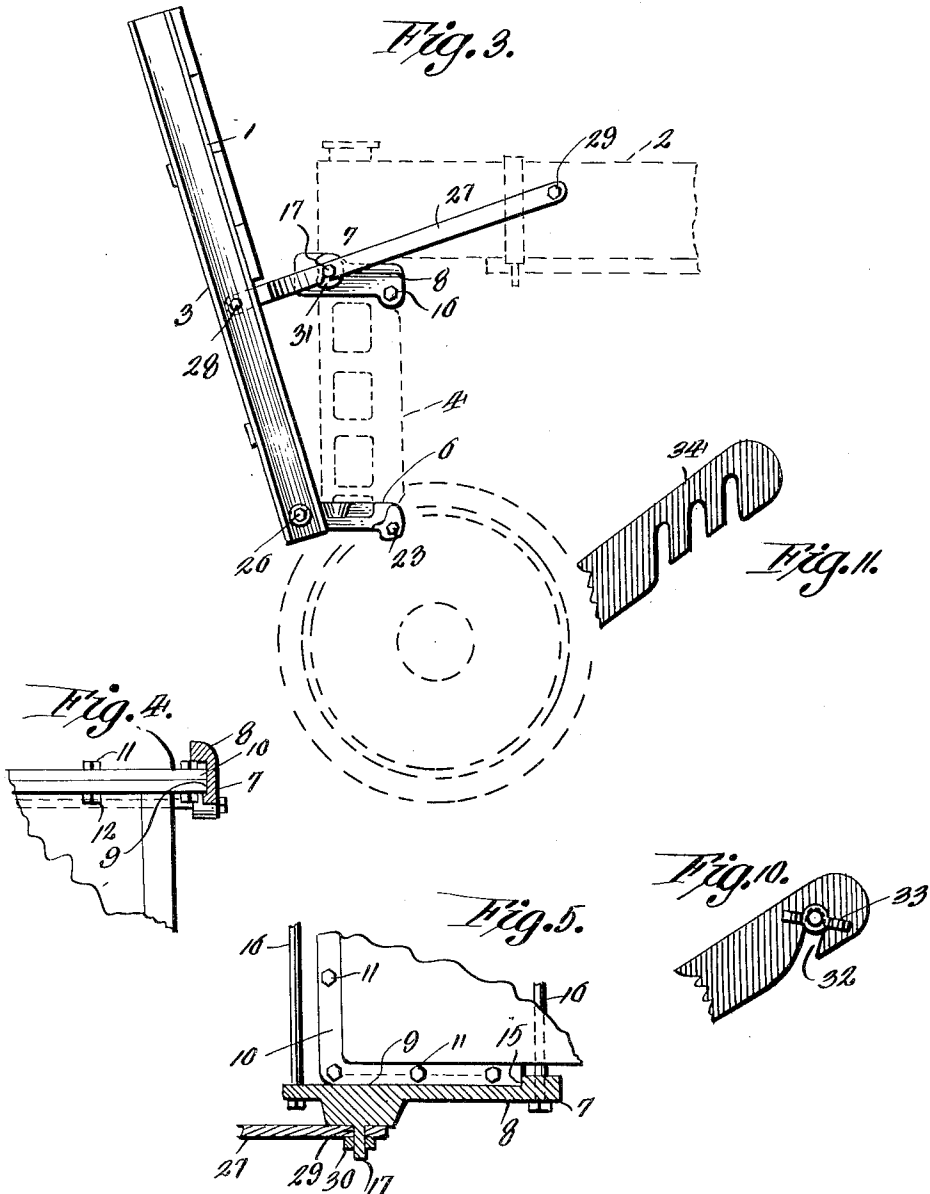
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ATTACHMENT FOR TRACTORS

Original Filed Dec. 6, 1924

3 Sheets-Sheet 2



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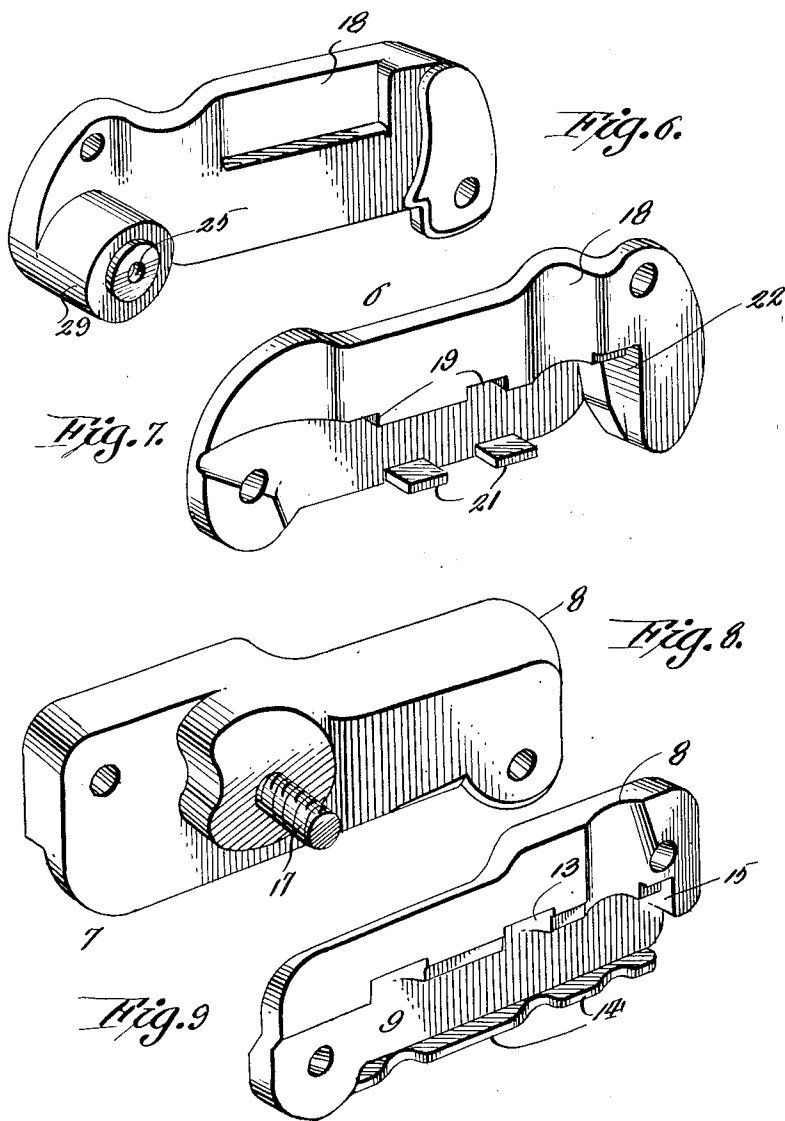
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ATTACHMENT FOR TRACTORS

Original Filed Dec. 6, 1924 3 Sheets-Sheet 3



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1,682,313

UNITED STATES PATENT OFFICE.

CHARLES H. TURNER, OF STATESVILLE, NORTH CAROLINA.

ATTACHMENT FOR TRACTORS.

Original application filed December 6, 1924, Serial No. 754,373. Divided and this application filed March 7, 1927. Serial No. 173,467.

This invention relates to an attachment for tractors, and more particularly to a continuing application of my prior application for patent, filed December 6, 1924, Serial #754,373, and the primary object of this invention is the provision of a novel construction of attachment whereby various types of machinery or other apparatus may be supported from the tractor in a very economical, inexpensive manner.

An object of the invention is the provision of an attachment that is secured to and solely supported from the radiator of the tractor in such a novel manner that the attaching and detaching of the structure from the tractor is greatly facilitated.

Another object of the invention is the provision of clamps or brackets that are designed in a novel manner to interlock or interfit with certain parts of the radiator as now constructed so that when placed they will not only rigidly and substantially support the other parts connected thereto but will coact in a manner to greatly strengthen the usual flange connections of the component parts of the radiator.

Another object of the invention is the design of clamp structures that pass entirely around and effectively embrace the upper and lower portions of the radiator in such a novel manner that the table may be effectively secured to one clamp structure for swinging movement, and the usual brace structures positioned above the table for ready accessibility or adjustment.

Besides the above, my invention is distinguished in the novel construction and design of each plate so that the same will effectively engage the flanges and the exposed bolt heads and nuts so that shifting of the plates is positively prevented when the tie rods are properly tightened.

Another feature of my invention is the novel manner of designing and arranging the parts so that the clamp structures only contact with and engage the most substantial part of the radiator, which is the side portions thereof.

The arrangement of the brace structures above the table and the novel design thereof which facilitates adjustments is another important feature of my invention, as the construction enables the table to be readily raised

and lowered and when in either of its two positions effectively held therein.

With these and other objects in view, my invention will be better understood from a description of the accompanying drawings, in which:—

Figure 1 is a side elevation of the attachment shown applied to a tractor radiator;

Figure 2 is a top plan view;

Figure 3 is a side elevation showing the table raised to facilitate cranking of the motor or travel of the tractor over the ground;

Figure 4 is a cross sectional view of one of the clamp plates;

Figure 5 is a horizontal sectional view through one of the clamp plates and its associated parts;

Figure 6 is a perspective view of one of the lower clamp plates;

Figure 7 is a view similar to Figure 6, looking at the opposite sides thereof;

Figure 8 is a perspective view of one of the upper clamp plates;

Figure 9 is a view similar to Figure 8, looking at the opposite sides of the plates;

Figures 10 and 11 are fragmentary views of a modified form of brace that may be used with my invention.

Again referring to the drawings illustrating one of the many constructions of my invention, the numeral 1 designates a table for supporting any suitable form of machinery or apparatus that it is advisable to drive from the usual drive pulley carried by the tractor 2, and in fact may be used as a work table. This table includes the side bars 3 that extend toward the radiator 4 of the tractor to be swingingly mounted on the pivot bolt 26 that forms one of the elements of the lower clamp structure 6 that functions in conjunction with the upper clamp structure 7 to effectively and rigidly support the table solely from the radiator 4 in a manner to allow the table to assume a horizontal operative position or to be swung vertically to allow ready access to the crank of the tractor or to facilitate the travel of the tractor. These clamp structures not only effectively support the table solely from the radiator but engage the constituent parts of the radiator in a manner to greatly reinforce the connections therebetween in a manner now to be described.

The upper clamp structure consists of the

pair of plates 8, each having a groove 9 for receiving and embracing the upper companion flanges 10 of the radiator structure 4. As is usual in the construction of tractor radiators now on the market, the bolt head 11 and nuts 12 are arranged in exposed projecting positions, and for the purpose of bringing about a more effective engagement between the plates and the radiator, the plate is provided with notches 13 for receiving the bolt heads and lugs 14 for engagement between the nuts. With the shoulder 15 arranged in abutting relation with the rear edges of the flanges the plates are effectively held against displacement when the tie rods 16 are brought into tight clamping engagement with the plates.

Particular attention is called to the fact that the clamp construction is such that the binding engagement of the plates is against the most substantial part of the radiator, that is to say, the side walls thereof, the tie rods 16 being so positioned as to be arranged in spaced parallel relation with the front and rear of the radiator, thereby preventing any interference with the passage of air through the core of the radiator or subjecting the core of the radiator to pressure or strain. The plates 8 are further provided with threaded studs 17 for a purpose hereinafter described.

The lower clamp structure includes plates 18 of a construction similar to the upper plates so as to provide notches 19 for receiving the bolt heads of the flanges of the radiator arranged in the groove 20, similar lugs 21 being provided to co-operate with the nuts of the flanges. The lower plates are also provided with shoulders 22 in abutting relation with the associated flanges of the radiator, and thus the lower plates are effectively held against displacement upon tightening of the tie rods 23. The lower plates are provided with bosses or projections 24 threaded, as indicated at 25, to receive the pivot bolts 26 that pivotally connect the side bars 3 to the clamp plates.

At this point I wish to call attention to the fact that the plates are clamped to the four corner portions of the radiator as units and the other parts of the attachment are detachably connected thereto, thereby enabling me to attach various other structures to the clamps when found advisable. This novel construction of clamp is such that the effective engagement with the radiator is not disturbed in any manner in the movements or adjustment of the other parts of the attachment.

It will be noted that the braces 27 are positioned entirely above the table where they are readily accessible for adjustments or detachment from the brackets, thereby eliminating the necessity of getting under the table and disconnecting parts when it is necessary to raise or lower the table. The braces 27 are pivotally connected to the side bars, as

indicated at 28, and their upper ends are provided with holes 29 for receiving the heretofore mentioned studs 17, nuts 30 mounted on the studs effectively holding the braces in engagement with the associated clamp plates. Each brace 27 is further provided with a notch 31 so disposed as to engage the stud when the table is thrown into its vertical angular position, as shown in Figure 3, and thus the upper clamp plates are capable of performing the dual function of supporting the table in a horizontal position or in a vertical inclined position.

It may be advisable to so design each brace that the same may be automatically detached from the stud in the upper swinging movement of the table, and one manner of accomplishing this desired result would be to provide an inclined slot 32 that will automatically receive the stud 17 in the downward swinging movement of the table and will automatically disengage from the stud in the upper swinging movement of the table, and for the purpose of preventing accidental disengagement a wing nut 32 may be utilized, as shown in Figure 10.

In Figure 11, I have shown the brace plate provided with a series of notches 33 for accommodating a plurality of adjustments of the table to assure the proper horizontal positioning thereof or the proper positioning of the machinery carried thereby with relation to the drive pulley of the tractor.

In concluding, I wish to lay considerable stress upon the simplicity of construction and the substantial manner in which each part is connected and associated so that not only will the table be effectively and solely supported from the four corners of the radiator, but the radiator itself will be effectively reinforced against strain. All adjustable parts are positioned above the table to facilitate adjustments and the various clamp structures are effectively clamped to the radiator as units so that the clamping action thereof will not be affected or interfered with in the usual movements or adjustments of the other parts of the attachment which are adjustably connected to the bracket structure through the use of independent connections.

Of course, it is to be understood that the brackets, table and braces may be designed and constructed in various other manners than illustrated and associated with each other in other manners than illustrated and, therefore, I do not desire to be limited in any manner except as set forth in the following claims.

I claim:—

1. In combination with a tractor having a forwardly arranged radiator structure including upper and lower flanges, clamps directly secured to the upper flange, clamps directly secured to the lower flange, a table pivotally connected to the lower clamp, and

braces pivotally connected to the table and detachably connected to the upper clamps.

2. In combination with a tractor radiator having an upper and lower flange, an upper and lower set of plates each formed with a groove receiving the said flanges, and tie rods securing the plates together in sets.

3. In combination with a tractor radiator including upper and lower sets of flanges secured together by bolts, an upper and lower set of clamp plates having grooves receiving the said flanges, and notches receiving the said bolts, and tie rods securing the plates together.

4. In combination with a tractor radiator having an upper and lower flange, a clamp structure passing entirely around the upper portion of the radiator and having grooves receiving said upper flange, and a second clamp structure spaced from and independent of said first structure passed entirely around the lower portion of the radiator and having grooves receiving the lower flange.

5. In combination with a tractor radiator, a clamp structure passed entirely around the upper part of the radiator and having grooves and notches receiving the bolt heads and upper flange of the radiator, a second clamp structure passed entirely around the lower part of the radiator and having grooves and notches receiving the lower flange and bolts of the radiator, a table secured to the lower clamp structure, and a brace secured to the table and to the upper clamp structure.

6. In combination with a tractor radiator having a pair of flanges secured together by

bolts, a clamp structure comprising plates arranged parallel to the sides of the radiator and having grooves and notches receiving said flanges and the heads of the bolts securing the flanges together, and tie rods extending in parallel spaced relation with the front and rear of the radiator and secured to the plates.

7. In combination with a tractor radiator having a pair of flanges secured together by bolts, a clamp structure comprising plates arranged parallel to the sides of the radiator and having grooves and notches receiving said flanges and the heads of the bolts securing the flanges together, and tie rods extending in parallel spaced relation with the front and rear of the radiator and secured to the plates, said plates being provided with threaded studs.

8. A clamp for a radiator having side flanges, a pair of plates each having a groove receiving a side flange to prevent vertical shifting, and tie rods for drawing the plates into tight engagement with said flanges and paralleling the front and rear of the radiator to prevent horizontal shifting of said plates.

9. In combination with a radiator having a side flange and a supporting structure associated therewith, a clamp device including a pair of clamp plates, each having a groove in one side for receiving therein said flange and further having a solid stud projecting from the opposite side for pivotal connection with said supporting structure.

In testimony whereof I affix my signature.
CHARLES H. TURNER.