Oct. 31, 1933. A. SCHEIDHAUER 1,932,641

SELF FED AUTOGENOUS FUSING MACHINE

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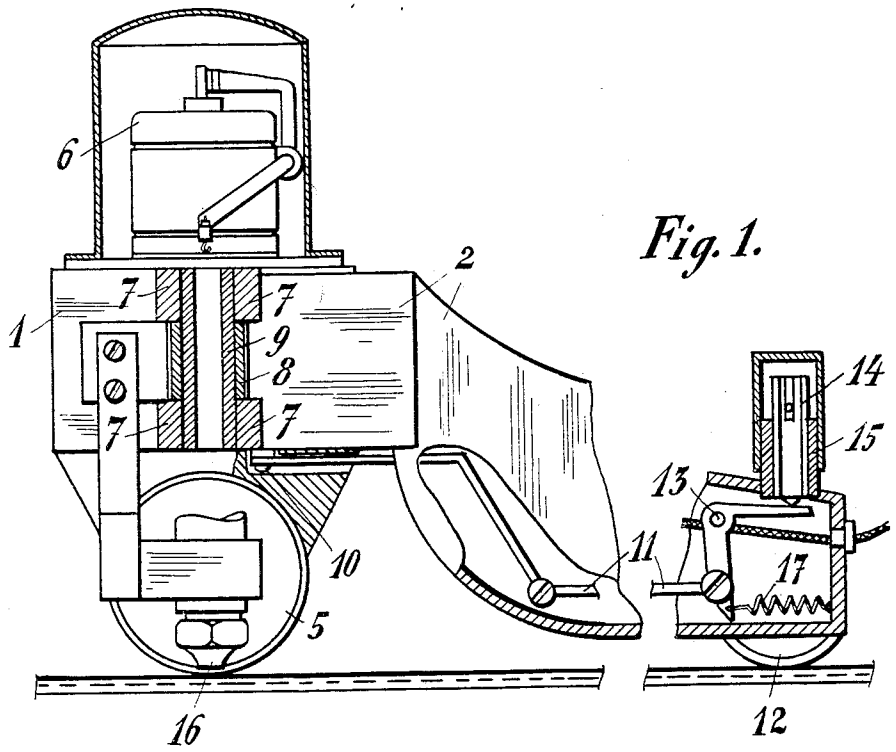


Fig. 1.

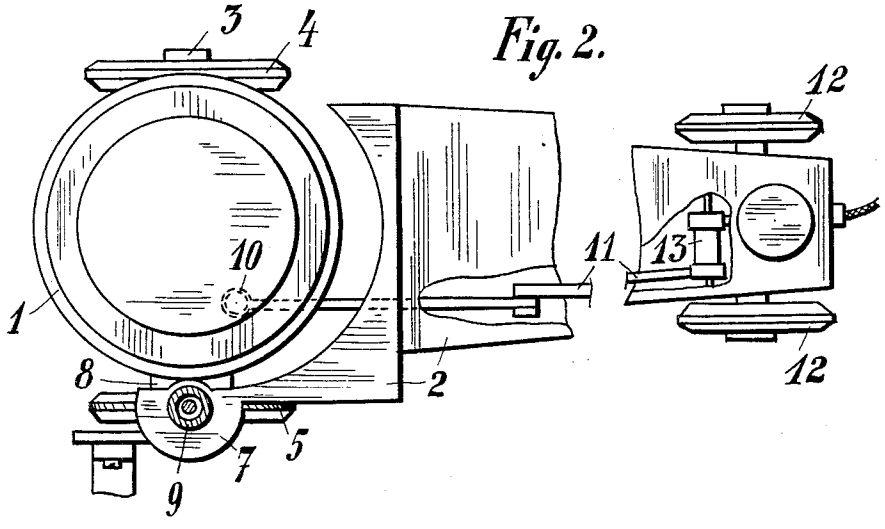


Fig. 2.

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SELF FED AUTOGENOUS FUSING MACHINE

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4 Claims. (Cl. 266—23)

In the known self fed autogenous fusing machines steered by hand, which carry the driving motor on their front portion and have a rigid gun-carriage like frame, it is necessary to effect the change of direction during the cutting movement by veering the carriage frame. Owing to the great leverage coming into question it may easily happen that the burner deviates from the traced line for cutting with the result that the work pieces produced are useless.

According to the invention the driving axle arranged in the front portion of the autogenous fusing machine is oscillatable independently of the gun-carriage like frame. In this manner even the slightest deviations of the burner can be effected in a perfect manner without it being necessary to oscillate the whole rigid carriage.

The steering of the driving axle is preferably effected by a lever system actuated by a control screw. Consequently, there is no objection to the employment of a pull rope or the like.

An embodiment of the invention is illustrated by way of example in the accompanying drawing in which:

Fig. 1 shows an autogenous fusing machine in side elevation partly in section.

Fig. 2 is a top plan view of Fig. 1.

The carriage of the autogenous fusing machine consists of a front portion carrying a driving motor 6 and of a gun-carriage like frame 2. The front portion also carries the gear case 1 for the drive of the driving axle 3 on one side of which a running wheel 4 is rotatably mounted whereas a driving wheel 5 is keyed on the axle 3. On the frame 2 a bearing fork 7 is fitted in which a bearing arm 8 of the gear case 1 engages over a sleeve 9. The arrangement is such that the sleeve 9 lies in the medial line above the driving wheel 5. A bolt 10 is mounted on the gear case 1 eccentric to the fulcrum of the bearing arm, on which bolt a rod system 11 engages which extends up to the rear end of the gun-carriage like frame 2 carried by two supporting rollers 12. An elbow lever 13 is connected to the rod system 11 and is actuated by a control screw 14 engaging a nut 15. An autogenous fusing burner 16 is mounted on the bearing arm 8 and projects laterally therefrom.

The operation is as follows:—

In order to effect a change of direction for example towards the left when the autogenous fusing machine is moving forward, the cap of the control screw 14 is turned in clockwise direction. Consequently, the elbow lever 13 is pressed downwards and the rod system shifted forwards. The bolt 10 therefore oscillates the gear case 1 and also the driving axle 3 towards the left so that the carriage assumes the new direction of movement without the fusing burner 16 rigidly connected to the carriage leaving the traced cutting line.

During the screwing back of the control screw 14 the rod system 11 is shifted in the opposite direction by a spring 17 which returns the rod system into its initial position.

If it is desired to change the direction of movement towards the right the control screw 14 is turned in anticlockwise direction so that the rod system 11 pulls the axle 3 towards the rear under the action of the spring 17 so that the carriage frame veers towards the right.

I claim:—

1. A self fed hand steered autogenous fusing machine with gun-carriage-like carriage, comprising in combination a carriage frame constructed as handle, a front carriage portion oscillatably mounted on said carriage frame, a driving axle mounted in said front portion, and means on said frame for oscillating said axle.

2. An autogenous fusing machine as specified in claim 1, comprising in combination with the carriage frame, the front carriage portion and the driving axle, a rod system mounted in said carriage frame eccentrically engaging said front portion, and a control screw on the rear end of said carriage frame adapted to actuate said rod system to oscillate said axle.

3. An autogenous fusing machine as specified in claim 1, comprising in combination with the carriage frame, the front carriage portion and the driving axle, a rod system mounted in said carriage frame eccentrically engaging said front portion, a control screw on the rear end of said carriage frame adapted to actuate said rod system to oscillate said axle, and a spring connected to said rod system adapted to effect the return movement of said rod system.

4. An autogenous fusing machine as specified in claim 1, comprising in combination with the frame, the front carriage portion and the driving axle, mounted in said front portion, a driven wheel on said axle, and a pivot on said carriage, engaging said front portion and arranged above and in the vertical plane of said driven wheel.

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