Aug. 10, 1937. J. E. GRAF ET AL 2,089,890

SHEET PILER BUGGY AND ITS OPERATING APPARATUS

Original Filed June 25, 1932 2 Sheets-Sheet 1

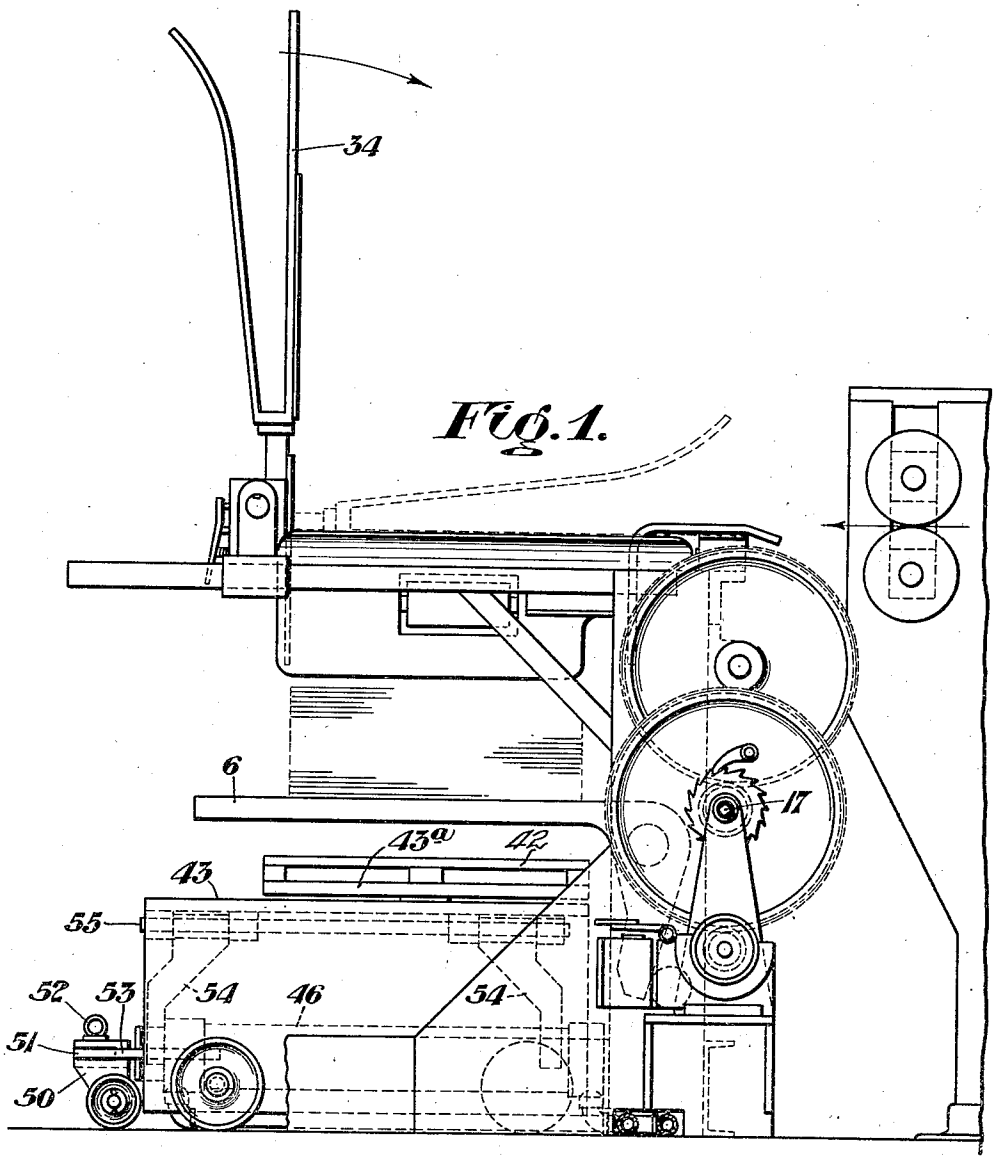


FIG. 1.

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Fig. 2.

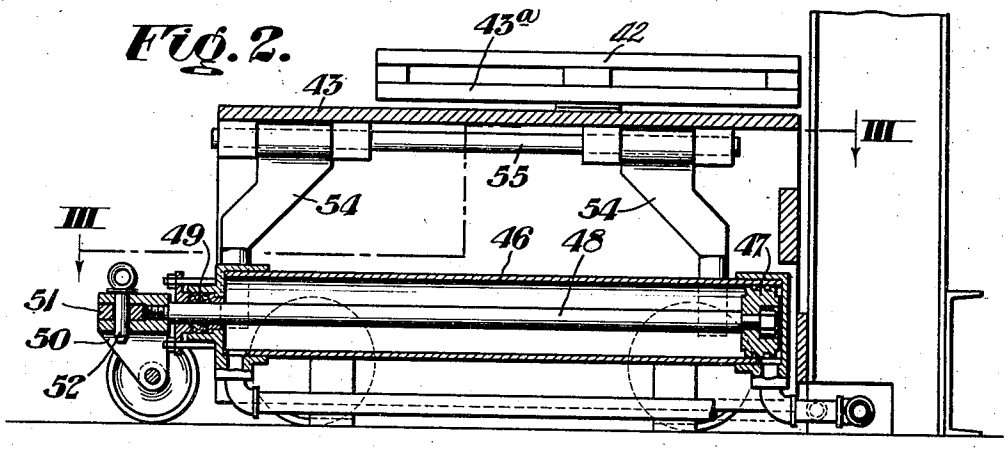


Fig. 3.

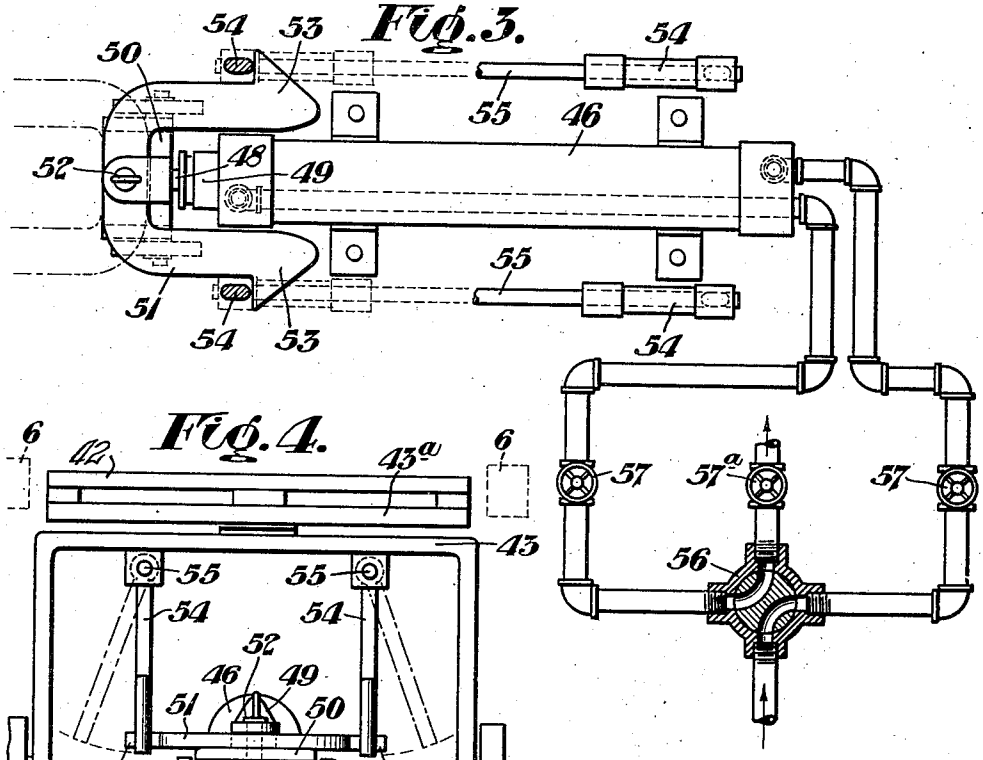


Fig. 4.

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2,089,890

SHEET PILER BUGGY AND ITS OPERATING APPARATUS

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Original application June 25, 1932, Serial No. 619,324. Divided and this application August 2, 1935, Serial No. 34,442

7 Claims. (Cl. 271—88)

This invention relates to sheet pilers and is a division from our application entitled "Sheet pilers", filed June 25, 1932 and bearing Serial No. 619,324. This application has now issued as Letters Patent No. 2,017,044. One of our objects in connection with the present invention is the provision of an improved buggy for use in connection with the sheet piler covered by this other application, and an improved apparatus for operating this buggy. Other objects may be inferred.

Referring to the accompanying drawings:

Figure 1 is an end elevation of a sheet piler with the present invention applied to the same.

Figure 2 is a vertical longitudinal cross-section of the operating device for the buggy shown in Figure 1.

Figure 3 is is a top plan of Figure 2 showing the various power connections.

Figure 4 is an end elevation of Figure 2.

More specifically, the arms 6, which constitute the sheet pile support, are arranged so that when in their lowermost position they straddle a raised platform 42 removably resting on a buggy 43. This platform then receives the weight of the pile and the buggy 43 may be rolled away from the piler. The arms of a lift-type tractor may then be run under the platform 42 and it and the pile carried to its destination. Since the platform is raised, the tractor arms may pass between it and the top of the buggy. Another platform is then substituted for the one removed and the buggy 43 run back into the piler. During this operation the catcher 34 is utilized to catch the tin plate which may now be removed manually and placed on the top of the new pile. Also, during this time the shaft 17 was manually rotated so that the arms 6 were raised to their uppermost position so that the pile could be started. These arms may, of course, be raised, while the buggy 43 is still away from the piler awaiting the arrival of the tractor, and immediately begin to receive more sheets.

The above buggy is preferably provided with a revolvable top 43a on which the platform 42 removably rests. This permits insertion of the tractor's arms beneath the platform 42 regardless of the former's direction of approach as this top may be turned when the buggy is removed from the piler.

Power apparatus is provided to roll the buggy 43 away from the piler. For instance, a cylinder 46 may be fixed to the piler beneath the buggy. This cylinder contains a plunger 47 fixed to a connecting rod 48 which passes through a stuffing box 49 in the front end of the cylinder. This connecting rod is mounted to a carriage 50 which runs on the floor and carries a cross-head 51. This cross-head is removably fixed to the carriage by a pin 52 and has hooked ends 53. The buggy is provided with depending arms 54 which are journaled to swing outwardly on shafts 55 and positioned for engagement by the hooked ends of the cross-head.

Air is supplied to both ends of the cylinder by means of a four-way valve 56 and suitable connecting pipes. The pipe connecting the valve to the front end of the cylinder is provided with flow restricting valves 57 and 57a, the latter valve being arranged to exhaust directly to the atmosphere. In operation, the valve 56 is first turned to admit air to the front end of the cylinder. It is then turned to admit air to the rear end of the cylinder, and the cross-head 51 moves the buggy. Because of the air compressed in the front end of the cylinder, which must exhaust slowly through the valves 57 and 57a, rapid acceleration is prevented. When the plunger 47 reaches the end of its stroke the valve 56 is again turned to admit air to the front end of the cylinder so that the plunger 47 returns to its original position, the inclined backs of the hooked ends 53 forcing the rear pair of depending arms 54 outwardly and allowing them to gravitationally drop inwardly for engagement. The four-way valve 56 is again turned to admit air to the rear end of the cylinder 46, and the buggy is rolled entirely clear from the piler. After the buggy is relieved of the pile the cross-head 51 is removed from its carriage and replaced in a reverse position. Then by proper reverse manipulation of the valve 56 the buggy can be rolled back to its pile receiving position.

Although a specific form of this piler has been shown and described in accordance with the patent statutes, it is not intended to limit the scope of the invention exactly thereto, except as defined by the following claims.

We claim:

1. A sheet piler including a descending pile support consisting of spaced members, a buggy having a revolvable top arranged in the path of said support's descent, and a removable platform constructed and arranged on said buggy's revolvable top so that said support straddles it and deposits the pile thereon, said platform being raised so that the arms of a lift-type tractor can be inserted beneath it while it is on said top of said buggy.

2. A sheet piler including a buggy arranged to

