Dec. 19, 1939. J. KARINSHAK, JR. 2,184,046

TRACK SCRAPER

Filed Nov. 29, 1937

FIG. 1.

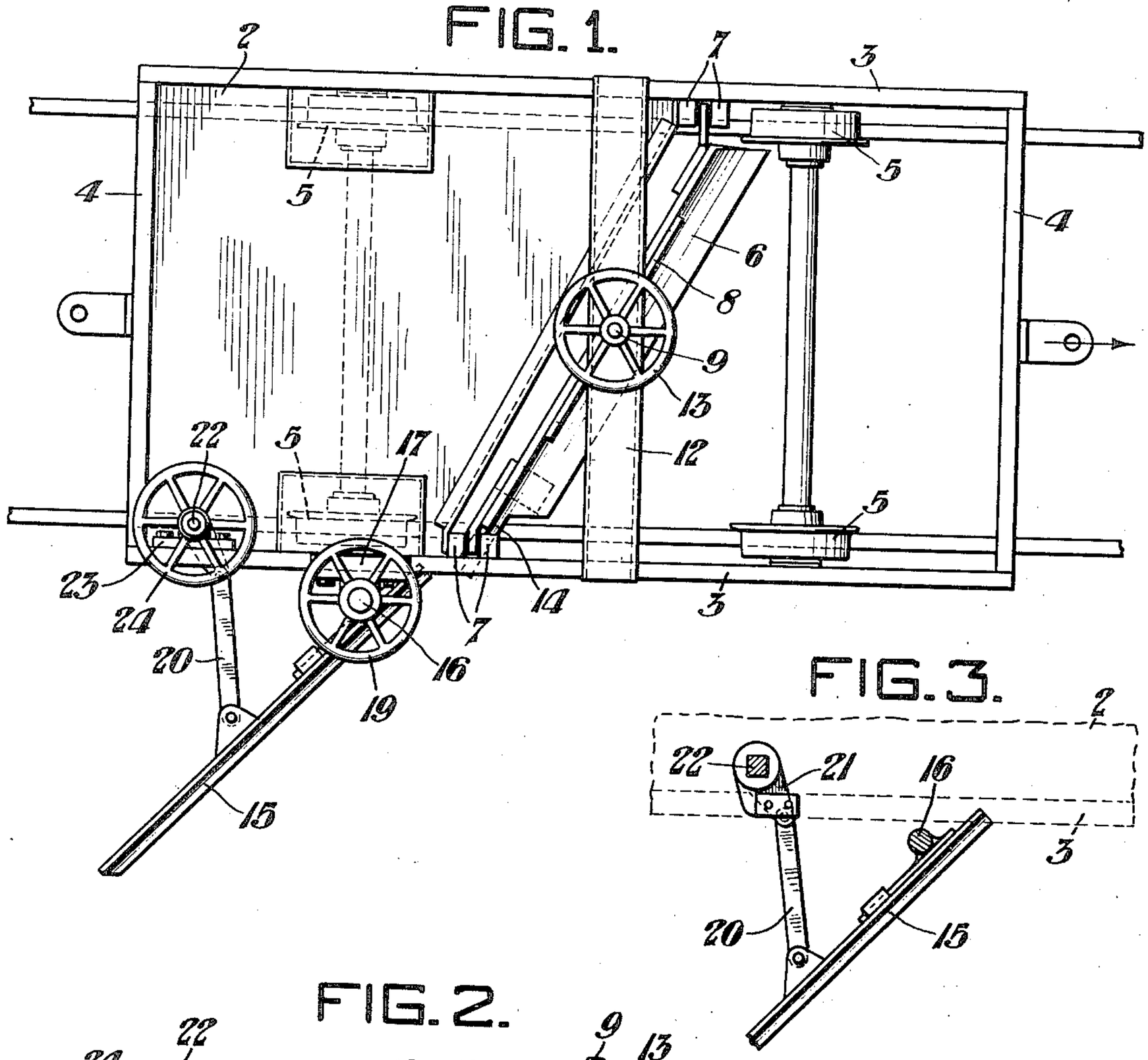
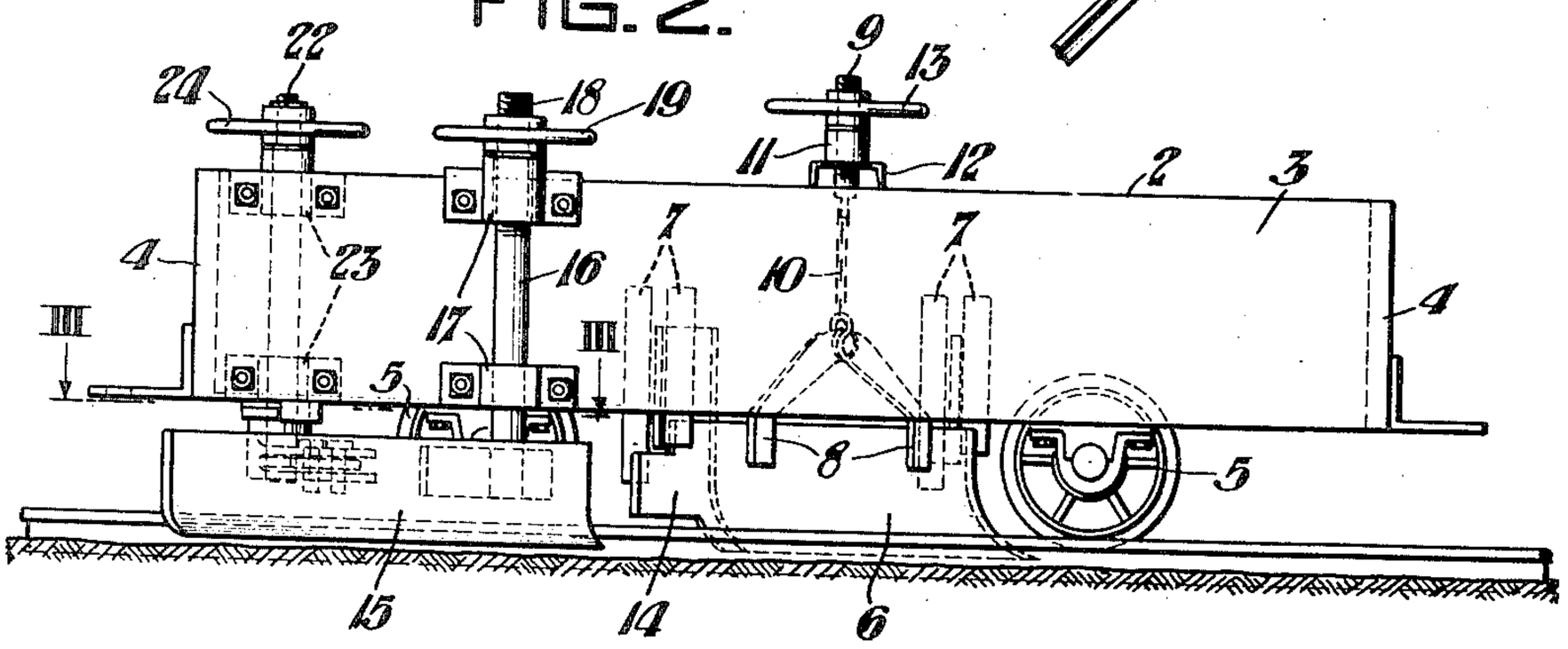


FIG. 3.

FIG. 2.



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TRACK SCRAPER

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5 Claims. (Cl. 37—105)

This invention relates to a scraper and, more particularly, to a track scraper for use in cleaning the roadbed of a railroad.

It is desirable to frequently clean the coal, refuse, etc., from between and around the rails of a railroad, especially in coal mines, as the rails and roadbed become littered with coal which falls from overloaded cars and from the mine roof. Such an accumulation of coal and refuse along the track not only tends to block the passageway but constitutes a hazard to the workmen and has to be periodically removed. It is the usual practice to remove this material entirely by hand, which is a laborious and an expensive operation since the material is very much scattered and lies between the rails as well as on the sides thereof.

It is an object of this invention to provide a scraper which will readily and inexpensively remove the coal and loose material from between and around the rails.

It is another object of this invention to provide a scraper which will remove loose material from the roadbed between the rails as well as that along the outside of the rails and concentrate the same in one place where it can be conveniently removed later.

It is a further object of the invention to provide a track scraper which is simple and inexpensive in its construction and which can be easily and quickly adjusted relative to the roadbed.

Various other objects and advantages of my invention will more fully appear during the course of the following specification, and will be particularly pointed out in the appended claims.

In the accompanying drawing I have shown, for the purpose of illustration, one embodiment which my invention may assume in practice.

In the drawing:

Figure 1 is a plan view of the improved track scraper of my invention;

Figure 2 is a side elevational view of the same, and

Figure 3 is a detail plan view of the angularly disposed side scraper.

According to the invention, there is provided a truck comprising a body portion 2 having sidewalls 3, end-walls 4 and wheels 5 which are adapted to run along suitable rails on the roadbed. There is carried by the body 2 between the side-walls 3, preferably in the central portion thereof between the front and rear wheels, an angularly disposed scraper 6 having, preferably, a turned-out lower edge. This scraper is mounted in opposed staggered guideways 7 which are carried by the inner surfaces of the side-walls 3 of the body 2. The scraper is suspended in the guideways by means of a yoke portion 8 which is attached to the end of a threaded screw 9 by means of a chain 10. The screw 9 is loosely mounted for vertical movement in a journal 11 which is, in turn, mounted on a cross-beam or member 12 which extends from one side-wall to the other across the top of the truck body. There is provided on the end of the threaded screw 9 a hand-wheel 13 which is adapted to rest on the journal 11 to support the scraper 6. The scraper 6 is adjusted vertically relative to the roadbed between the rails by means of this hand-wheel. The scraper also has a horizontal side-extending portion 14 which is adapted to extend over one of the rails to deflect the loose material from between the rails thereover.

There is positioned rearwardly of the end of the extending portion 14 of the scraper 6, to one side of the body 2 outside the rails, a second angularly disposed scraper 15 also preferably having a turned-out lower edge and having one end attached to the lower end of a spindle 16 which is rotatably mounted for vertical movement in bearings 17 on the outer surface of the truck body. This spindle has an upper threaded portion 18 which extends above the upper bearing 17 and has mounted thereon a hand-wheel 19 for vertically adjusting the scraper 15 relative to the roadbed outside of the rails.

The scraper 15 is adapted to be adjusted angularly relative to the rails by means of a link member 20 having one end connected to the scraper rearwardly of the spindle connection (to the scraper) and its opposite end connected to a crank-arm 21 which is, in turn, connected to the end of a spindle 22. The spindle 22 is loosely mounted in bearings 23 which are mounted on the inner surface of the side wall 3 of the body rearwardly of the spindle 16. A hand-wheel 24 is mounted on and keyed to the upper end of the spindle 22 above the upper bearing 23 for turning the spindle 16 to angularly adjust the scraper.

It will be seen that, in operation, the scraper 6 is adjusted vertically relative to the roadbed between the rails and the scraper 15 adjusted both vertically relative to the roadbed outside of the rails and angularly relative to the rails and the clearance along the side of the rails, and the scraper truck moved along the tracks by any suitable source of power. The loose material is scraped from between the tracks by the scraper 6 and deflected, due to its angular position, to

one side and over the rail into the path of the scraper 15 which deflects and concentrates the material to one side of the roadbed or passageway from whence it can be easily and conveniently loaded and removed.

While I have shown and described an embodiment of my invention, it will be understood that this embodiment is merely for the purpose of illustration and description and that various other forms may be devised within the scope of my invention, as defined in the appended claims.

I claim:

1. A scraper for use in cleaning the roadbed of a railroad comprising a body member, a scraping member carried by said body member and being floatingly disposed between the rails at an angle thereto, vertically adjustable means for loosely suspending said scraping member between the side walls of said body, a guideway carried by the opposed side walls of said body with the free ends of said scraping member being loosely and slidably positioned therein, a second scraping member independently carried by said body member and disposed to one side of said rails at an angle thereto, vertically adjustable means for pivotally attaching one end of said second mentioned scraping member to the side wall of said body adjacent the rearwardly disposed end of the first mentioned scraping member, and means for adjusting said second mentioned scraping member angularly relative to the rails, said scraping members being so constructed and arranged that the rearwardly disposed end of the first mentioned scraping member is positioned just ahead of the forwardly disposed end of the second scraping member so that the material collected from between the rails by the first mentioned scraping member will be deflected over one of the rails into the path of said second mentioned scraping member which, in turn, deflects the material to one side of the roadbed.

2. A scraper as defined in claim 1 wherein the vertically adjustable means for pivotally attaching the end of the second mentioned scraping member to the body comprises a vertically disposed spindle pivotally positioned in bearing members carried by the body, the bottom end of said spindle being securely attached to the second mentioned scraping member adjacent the end thereof and the upper end having a threaded portion with a hand-wheel disposed thereon directly above the uppermost bearing member for adjusting the vertical position of said scraping member.

3. A scraper as defined in claim 1 wherein the adjustable means for loosely suspending the scraping member comprises a chain having its lower end connected to the scraping member with its upper end connected to the lower end of a spindle which is loosely positioned in a journal member carried by the body member, the spindle having an upper threaded portion with a hand-wheel disposed thereon directly above the journal for vertically adjusting the position of floating scraping member between the rails.

4. A scraper as defined in claim 1 wherein the means for adjusting said second mentioned scraping member angularly relative to the rails comprises a vertically disposed spindle pivotally positioned in bearing members carried by the body, the lower end of said spindle having a crank-arm securely arranged thereon with the outer end of said crank-arm pivotally connected to one end of a link, the opposite end of the link being pivotally connected to the second mentioned scraping member intermediate the length thereof and a hand-wheel securely arranged on the upper end of said spindle directly above the uppermost bearing for adjusting the angular position of said scraping member relative to the rails.

5. A scraper for use in cleaning the roadbed of a railroad comprising, in combination, a box-shaped body portion, a main scraping member arranged between the side walls of said body portion having a bottom scraping portion which is adapted to be disposed between the rails, said scraping member being floatingly disposed and arranged angularly to the rails, a guideway arranged on each of the opposed inner surfaces of the side walls of said body portion with the free ends of said scraping member being loosely and slidably positioned therein, a yoke member arranged on the top side of said scraping member, a cross-beam arranged across the top of said body portion directly above said scraping member, a threaded spindle vertically and loosely arranged centrally of said cross-beam having the lower end thereof connected to said yoke member by means of a chain, a hand-wheel disposed on the threaded portion of said spindle above said cross-beam for supporting said main scraping member and for adjusting the vertical position thereof, said scraping member having an outwardly extending portion associated with the rearwardly disposed side thereof which extends over the top of the rail on that side of the track, a second scraping member carried by said body and disposed outside of the track adjacent the rearwardly disposed side of said main scraping member and rearwardly thereof, a vertically disposed spindle having a threaded portion arranged on the upper end thereof pivotally mounted in suitable bearings disposed on the outer side wall of said body portion with the lower end of said spindle being securely attached to said second scraping member adjacent the inner end thereof, a hand-wheel disposed on the upper threaded portion of said spindle directly above the topmost bearing for adjusting said second mentioned scraping member vertically, a second spindle pivotally arranged in bearings disposed on said body portion rearwardly of said first mentioned spindle, the lower end of said second spindle having a crank-arm securely mounted thereon with the outer end of said crank-arm being pivotally connected to one end of a link, the opposite end of said link being pivotally attached to the second mentioned scraping member intermediate the length thereof, and a hand-wheel securely arranged on the upper end of said second spindle directly above the uppermost bearing for adjusting the angular position of said second mentioned scraping member.

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