

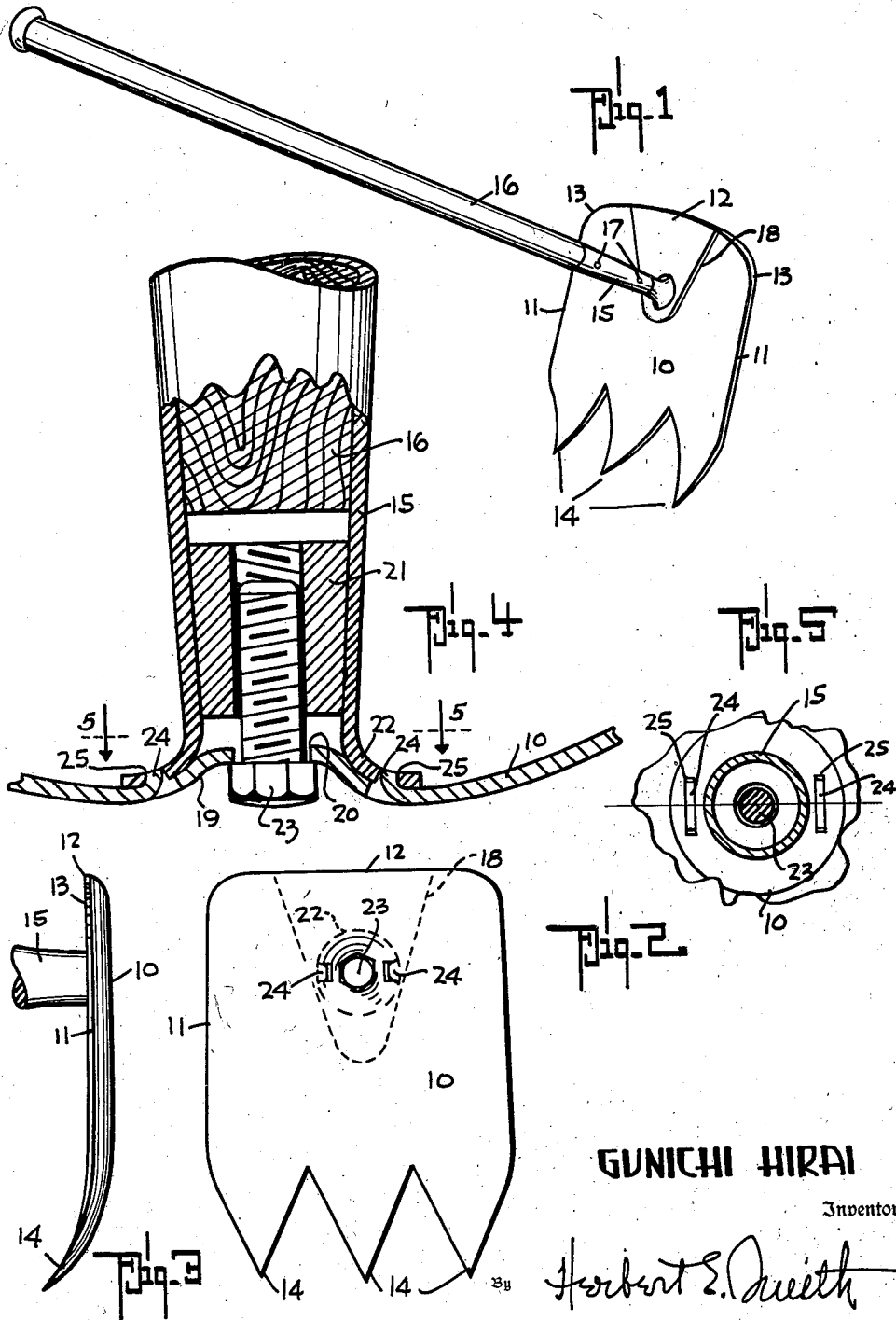
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DRESSING TOOL

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DRESSING TOOL

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My present invention relates to dressing tools and especially to that class of tools used in railway maintenance upon the road bed, and especially upon the ballast, and has for its specific purpose the provision of a dressing tool which is capable of removing ballast from between ties when new ties are to take the place of old ones, of returning the ballast after a new tie has been inserted, and of otherwise grading and smoothing down the road bed to meet the standard railway specifications for road bed maintenance.

Heretofore such work has been done principally with short handled shovels, which require that the worker shall work in a bent position, causing great strain upon his back and rendering his capabilities for performance and accomplishment something less than he is capable of under better working conditions.

The modern railway, due to the requirements of high speed traffic, and to accomplish greater comfort for the traveling public, is now almost universally ballasted with coarse washed gravel, the coarse gravel permitting dust and other accumulations to fall between the interstices of the gravel, to be washed from the surface by the rains or by occasional sprinkling, and to provide proper drainage. Such ballast has met the requirements of modern travel but has made it more difficult for track workers to remove the gravel prior to the removal and interchange of ties.

With the tool of my device the problem is simply solved, and with a minimum of expended effort a considerable amount of work may be accomplished.

A further accomplishment of my invention resides in the use of the same tool for surfacing the road bed to the required specifications; that is, for maintaining the edges of the ballast at a uniform angle, and also in working on and forming the shoulder of the road bed.

With this and other objects in view I have illustrated one preferred form of the device, and the advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing, forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view of my dressing tool,

Figure 2 is a rear view in elevation of the blade of the dressing tool,

Figure 3 is a side elevation of the blade, show-

ing a portion of the ferrule to which the handle is attached,

Figure 4 is a view in cross section through a portion of the blade and through a portion of one form of ferrule that I have adopted as a means for securing the blade to a proper working handle, and

Figure 5 is a fragmentary view showing in reduced scale for convenience of illustration a portion of the blade and the ferrule in cross section taken on lines 5—5 of Figure 4 and showing the supporting bolt also in cross section upon the same lines.

Referring to Figure 1, the numeral 10 represents a working blade formed from a dished plate having two parallel sides 11 forming working edges, a cupped or curved top edge 12 which also on occasion may be used as a working edge, and having rounded corners 13 between the side and top edges. The true working edge of the tool is at the bottom side of the plate, in which are formed triangular teeth 14 in their preferred form, three in number. The width of the blade 10 is somewhat less than the spacing between railway ties according to standards adopted. The teeth are curved forward, due partly to the dished blade formation and partly to the fact that their disposal in a curved and forward direction clearly aids in the work of which the tool is capable upon a road bed.

Along a central vertical axis, and somewhat above the horizontal center of the blade, I place a handle fastening means comprising a sleeve or ferrule 15 which may be fixed to the blade as by welding or may be removable as indicated in Figure 4. This means comprises a ferrule 15 to which a handle 16 may be secured through the use of rivets 17. The handle stands at approximately right angles from the blade and is of sufficient size and length to permit a track worker to manipulate the blade with facility without requiring bending or stooping. The blade, at the point of attachment of the ferrule to the upper edge thereof, may be reinforced by a stiff, thin plate 18 that may be welded to the blade or otherwise secured thereto to add strength and still permit the blade to be of comparatively light weight material. The dishing of the blade also adds to the stiffness of the implement, at the same time maintaining a required lightness.

While in some instances it may be preferable to secure the ferrule to the blade by welding, in many instances it is advisable that the blade be detachable from the ferrule and the handle, and for this purpose I have indicated in Figure 4 a

ready and handy means for accomplishing such a purpose.

The blade 10, having a detachable ferrule, is dished inwardly toward the direction of the handle as at 19 and provided with a central hole 20. The ferrule 15 in its preferred form is slightly tapered and hollow to receive the handle 16, which stops short of the extreme end of the ferrule. At its contact edge with the blade the ferrule is flanged as at 22. The flange conforms to the curvature of the blade as formed at 19. An interiorly threaded plug is inserted into the ferrule ahead of the handle, and a cap screw or bolt 23 passing through the hole 20 in the blade and engaging with the interior threads in the tapered nut 21 will draw the ferrule to the blade in a firm manner and hold it in place during use.

To insure against turning of the ferrule with respect to its attachment on the blade I provide keys as 24 cut and pressed forwardly of the blade to correspond to and register with slots 25 formed in the flange of the ferrule. When the ferrule is engaged to the blade and the slots are engaged by the keys 24 and the bolt 23 has been tightened, a firm and rigid connection between ferrule and blade is accomplished and the handle is prevented from turning with respect to the blade.

Experience in use has shown that with such a tool it is easily possible for a track worker to accomplish three times as much work in a given length of time with the same approximate expenditure of labor necessary in former methods of road bed work, and that better lines and contours are possible through the use of this tool. The extremely large sized points 14 easily penetrate the coarse surface gravel of the ballast, permitting large amounts to be drawn to one side prior to tie removal and to be again replaced when a new tie has been fitted, spiked to the rail and tamped. The teeth, due to their forward projection and to their widely separated points, have little difficulty in reaching depth in coarse gravel, and less resistance is offered to this form of blade than to a shovel point so commonly used.

The tool is also valuable in straightening up the shoulders of the road bed or in forming the

slope of the ballast on the road bed, and further is of considerable advantage in returning gravel and coarse material forming the road bed that has rolled down the shoulders of the road and landed in the ditch. Modern road bed construction is expensive. This tool will materially aid in recovering all forms of material that have drifted from their original placement, thereby saving the work of shoveling material back or the cost of adding more material.

While I have explained and shown the use of my dressing tool in connection with railway road beds, it will be equally useful in this same manner on highways, grading operations and other places where gravel or coarse material is used for surface requirements which has to be moved or dressed from time to time.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a dressing tool of the character described wherein is employed an elongated handle having an end ferrule which detachably supports a toothed blade at an angle thereto; the combination of an anchor block seated in said ferrule, a flaring end flange on said ferrule for engagement against the face portion of the toothed blade, male and female register means cooperable between the end flange of said ferrule and the engaged face portion of said blade, and a member passing through the blade and engaging the anchor block to securely position said blade on the flared end of said ferrule.

2. In a dressing tool of the character described wherein is employed an elongated handle having an end ferrule which detachably supports a toothed blade at an angle thereto; the combination of an anchor member in said ferrule, a flaring end flange on said ferrule for engagement against the face portion of the toothed blade, male and female register means cooperable between the end flange of said ferrule and the engaged face portion of said blade, and a member passing through the blade and engaging the anchor block to securely position said blade on the flared end of said ferrule.

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