

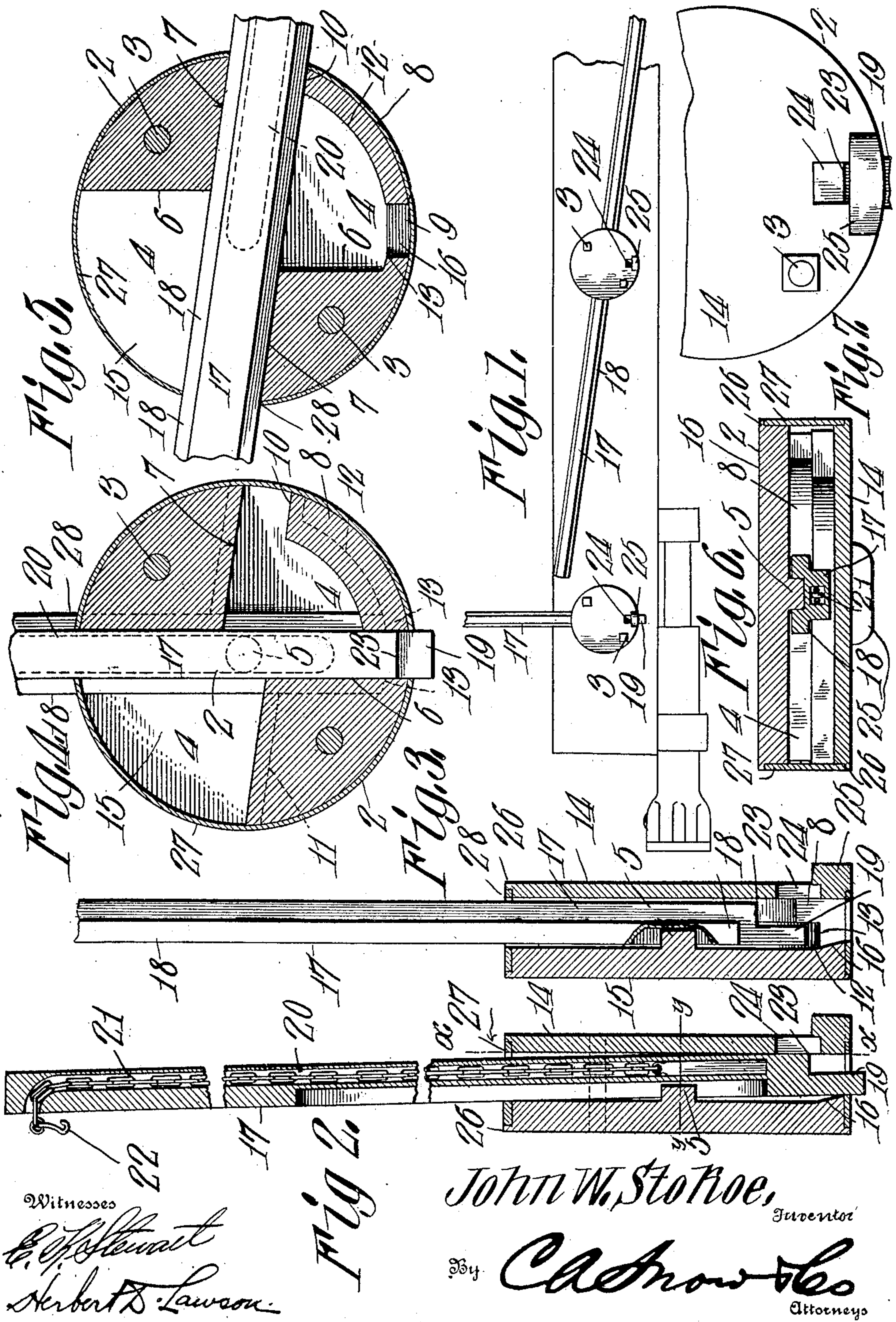
No. 881,971.

PATENTED MAR. 17, 1908.

J. W. STOKOE.

CAR STAKE.

APPLICATION FILED OCT. 21, 1907.



UNITED STATES PATENT OFFICE.

JOHN WALLACE STOKOE, OF JEANERETTE, LOUISIANA.

CAR-STAKE.

No. 881,971.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed October 21, 1907. Serial No. 398,485.

To all whom it may concern:

Be it known that I, JOHN WALLACE STOKOE, a citizen of the United States, residing at Jeanerette, in the parish of Iberia and State of Louisiana, have invented a new and useful Car-Stake, of which the following is a specification.

This invention relates to car stakes and is more particularly an improvement upon the device described and claimed in Patent No. 865,448, granted to me on Sept. 10, 1907. Car stakes of this character which are mounted to slide and swing within supports connected to the car body have been found objectionable because the outward pressure against the stakes exerted by the lumber or other material on the car, seriously interferes with the movement of the stakes when it is desired to raise them and subsequently swing them downward out of operative position.

The principal object of the present invention is to overcome this objectionable feature in a simple and efficient manner and without adding to the cost or to the mechanism of the stakes as heretofore devised.

Another object is to provide simple and efficient means for preventing the accumulation within the device of ice, snow, dirt, and other materials likely to interfere with the operation of the parts.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a side elevation of a portion of a car and showing the relative positions of the stakes thereon when in operative and in inoperative positions respectively. Fig. 2 is a vertical section through the stake and its support, said stake being shown in operative position. Fig. 3 is a section through the support and showing the stake in elevation and raised out of normal position prior to being lowered into inoperative position. Fig. 4 is a section on line $x-x$, Fig. 2. Fig. 5 is a similar view showing the stake in its lowered or inoperative position. Fig. 6 is a section on line $y-y$, Fig. 2. Fig. 7 is a front elevation of the lower portion of the stake support.

Referring to the figures by characters of reference, 1 designates a car platform and

secured to one side thereof at desired intervals are supports 2 preferably held in place by means of bolts 3. Each of the supports is formed of heavy metal and has oppositely disposed substantially sectoral recesses 4 formed therein and communicating at the center of the support where a central stop lug 5 is located. One of the walls of each recess is perpendicular to the top of the car platform as shown at 6 and these two walls are located in planes spaced apart a distance equal to the width of the car stake which will be hereinafter described. The opposite walls 7 of the two recesses are disposed at angles of about one hundred degrees to the top of the platform although it is to be understood that this angle may be varied to suit different conditions. These two walls are also located in planes which are spaced apart a distance equal to the width of the stake. The lower recess 4 is partly closed at the periphery of the support by an arcuate wall 8, there being an opening 9 formed between the lower end of the wall and the vertical wall of the lower recess and another opening 10 between the upper end of the arcuate wall and the adjoining wall of the lower recess. Opening 10 is equal in width to the width of the stake hereinafter described, whereas the opening 7 is of less width. The walls 6 and 7 of the two recesses are grooved longitudinally as indicated at 11 and the inner curved face of the arcuate wall 8 is also curved as shown at 12. The walls of the opening 9, however, are not grooved but instead form abutments 13 for the purpose hereinafter described. As indicated particularly in Figs. 2 and 3 the front and rear walls 14 and 15 respectively of the sectoral recesses 4 are spaced apart a greater distance than the thickness of the stake hereinafter described. That portion of wall 15 however which extends into the opening 9 is beveled as indicated at 16 so that the lower or outer end of opening 9 is of reduced transverse area and of approximately the same area as the greatest thickness of the stake.

The stake used in connection with the support consists of an elongated metallic member 17 having longitudinal side ribs 18 designed to fit within grooves 11 which are of greater width than the thickness of the ribs. These ribs terminate short of the lower end of the stake where a tongue 19 of less thickness than the stake, is formed. Lug 5 projects into a longitudinal groove 20 in the stake.

A weighted chain 21 may be movably mounted within the stake and carries a hook 22.

A support such as described is designed to be secured to one side of a car and the stake, when out of operative position, is designed to rest in an inclined position within opening 10 and against the walls 7 as indicated in Fig. 5. When it is desired to place the stake in an upstanding position it is pulled longitudinally until the tongue 19 is brought into the lower sectoral recess 4 and groove 12. It is then swung into an upright position with lug 5 as a pivot until the tongue arrives above the opening 9 whereupon the stake will fall by gravity into said opening. The beveled wall 16 will shift the lower end of the stake outwardly toward the wall 14 against which it will bind, this binding action taking place at a shoulder 23 formed at the inner end of tongue 19. As the point of contact between the beveled wall 16 and tongue 19 is below shoulder 23 it will be obvious that said shoulder will act as a fulcrum and that the stake will be forced against the upper end of wall 13 as clearly indicated in Fig. 2. The stake will thus be tightly wedged in an upstanding position and will be inclined inwardly so as to overhang the car platform. An opening 24 is formed in the support close to the point of contact between shoulder 23 and wall 14 and an extension 25 is cast or otherwise disposed upon the outer face of the support and close to the lower end of opening 24.

The above described or upstanding position of the stake is its normal one. When the stake is so located lumber can be stacked upon the car platform or body and the outer walls of the stack will obviously converge upwardly because of the positions assumed by the stakes. When it is desired to release the load a crowbar is inserted through the opening 24 of one of the supports 2 and under shoulder 23. With the extension 25 as a fulcrum the stake can be forced upward by means of the crowbar until the lower end of the tongue 19 assumes a position above the beveled wall 16. The stake will thus be loosened within its support and can be pulled outwardly into a vertical or an outwardly inclined position and will thus move away from the lumber so that the stake can be swung downward within its support 2 without interference by the lumber. This is due to the fact that, as the opposite side walls of the stack of lumber converge upwardly they will be held by gravity in position after the stakes have been moved outward therefrom. After the stake has been raised and loosened in the manner hereinbefore described it can be swung into lowered position and then moved longitudinally

within the opening 10 as indicated in Fig. 5 and so as to assume a position entirely below the upper surface of the car platform.

In order that the sectoral recesses 4 and the openings 9 and 10 may be kept clear of dirt, ice, snow etc. which would tend to clog the support and prevent the proper operation of the stake, the support is provided with parallel annular guide flanges 26 between which is mounted a guard ring 27. This ring is designed to revolve upon the support and has openings 28 therein in which the stake is slidably mounted. Obviously when the stake is swung downward into lowered position that opening 28 in the lower portion of the ring will move away from the opening 9 and will register with opening 10 and therefore permit the stake to be slid longitudinally within the support. It will thus be apparent that the recesses 4 and the openings 9 and 10 are kept closed at all times and it becomes impossible for objectionable accumulations to form within the support. The openings 28 are of course slightly wider than the thickness of the stake so as to permit the slight lateral movement hereinbefore mentioned.

What is claimed is:

1. The combination with a support; of a slidable stake mounted to swing thereon to assume either a vertical or a non-vertical position, said support being disposed to engage one end portion of the stake to hold the same in an upright position, and means movable with the stake and about the support for closing the interior of the support.
2. The combination with a support having peripheral openings; of a slidable stake mounted to swing within the support to assume either an upright or a non-upright position, a closure ring surrounding the support and movable with the stake, and means upon the support for preventing lateral displacement of the ring.
3. The combination with a car platform; of a support fixedly connected to one side thereof, a slidable stake mounted to swing within the support to assume either an upwardly extending or a lowered position, said support being disposed to engage one end portion of the stake to hold the same tilted over the platform when in upwardly extending position, and means movable with the stake and about the support for closing the interior of the support.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN WALLACE STOKOE.

Witnesses:

JAS. M. WALKER,
M. J. WARRINER.