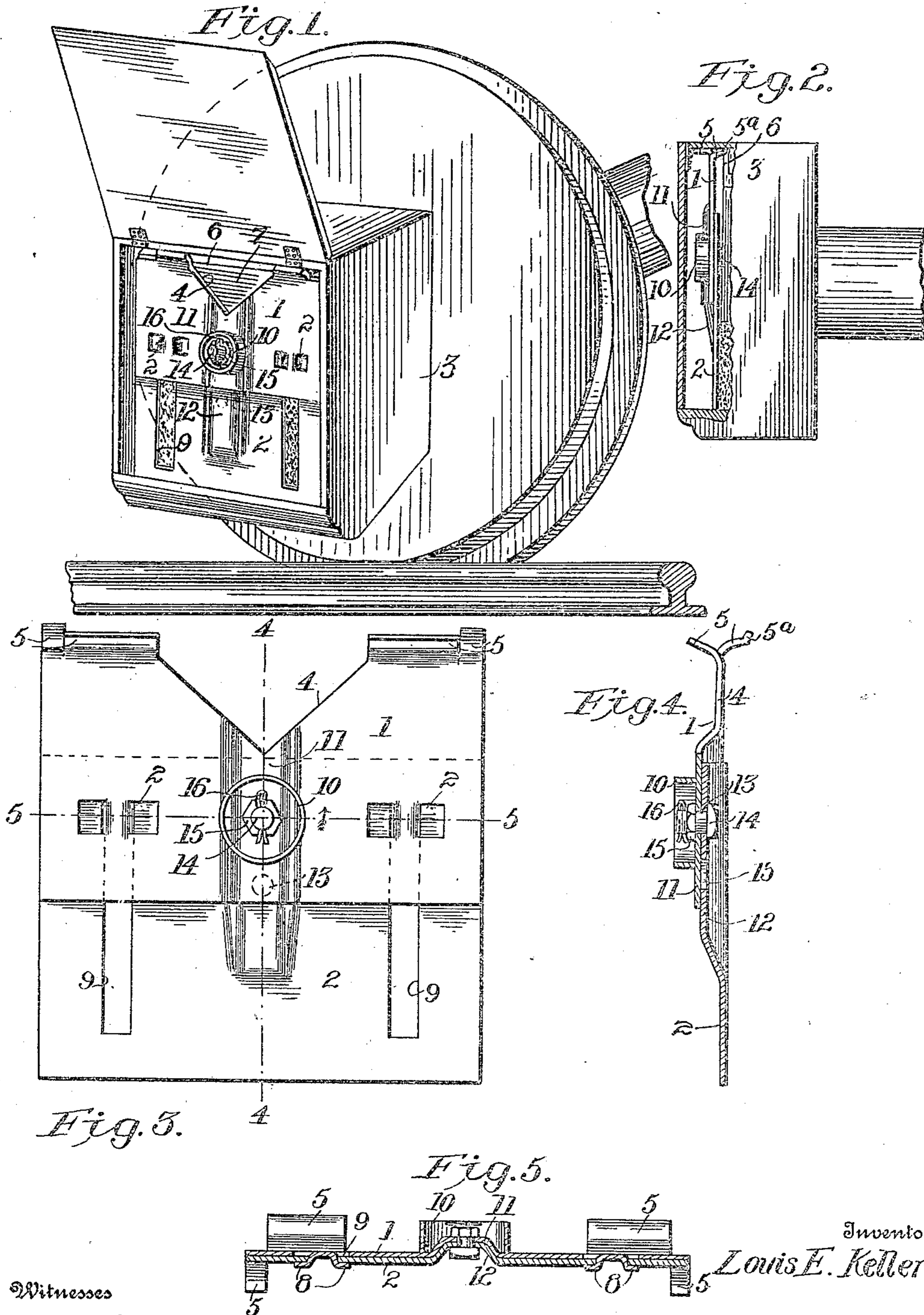


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CAR JOURNAL, SPONGING SHIELD, AND OIL SAVER.
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Patented May 17, 1910.



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UNITED STATES PATENT OFFICE.

LOUIS E. KELLER, OF OIL CITY, PENNSYLVANIA.

CAR-JOURNAL, SPONGING-SHIELD, AND OIL-SAVER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS E. KELLER, a citizen of the United States, residing at Oil City, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Car-Journals, Sponging-Shields, and Oil-Savers, of which the following is a specification, reference being had therein to the accompanying drawing.

It is a known fact that sponging in journal boxes is often stolen, and, furthermore, that foreign substances enter the journal boxes and materially retard or affect the journal of the axles of car trucks, and to prevent the sponging or other appurtenances of the ordinary journal box from being removed or stolen, I have produced a peculiarly-constructed shield or guard, and, therefore, it is to be understood that the object of my invention is the production of a shield that will save railroads the loss of the sponging, wedges, brasses, etc., placed in the journal boxes, besides minimizing the amount of wear of the journal, which is usually involved by the entering of foreign substances, such as dirt and snow, into the box.

Another object of the invention is the construction of a shield, which will permit the trainman or operator to easily inspect the sponging and also the brasses or wedges in the box, and at the same time, will not permit these mentioned articles or appurtenances of the box to be removed without the operator being provided with a peculiarly constructed tool for disassembling the parts of the shield.

With these and other objects in view, the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a perspective view of my device or shield, showing the same in the journal-box. Fig. 2 is a view, in side elevation, of the journal-box, the box being partly shown in section, and showing the position of the shield within the box. Fig. 3 is a front view, in elevation, of a shield or device constructed in accordance with my invention. Fig. 4 is a vertical, sectional view of the device taken on line 4, 4, Fig. 3. Fig. 5 is a horizontal, sectional view taken on line 5, 5, Fig. 3.

My shield or device is, preferably, made in two parts, to wit: the upper part or sec-

tion 1 and the lower part or section 2. The upper part or section is designed to fit snugly in the upper part of the journal-box 3, and said upper part is provided with a sight-opening constituted by, preferably, a V-shaped notch or cut-out portion 4. At opposite sides of the sight-opening 4, and formed on the upper edges of the primary or upper section 1, are pairs of prongs 5; the prongs in each pair being bent in opposite directions, and when the shield is placed in the box 3, these prongs engage the inner face of the top of the box and act as a steadying or bracing device for holding the shield in its vertical position. It will be understood that the prongs fit in front of the wedge-plate 6, and brasses 7, so as to hold the shield firmly in position, and at the same time, protect the wedge-plate and brasses. Furthermore, the sight-opening 4, not only permits the inspection of the wedge-plate and brasses, but also the oiling of the journal.

Integral with the primary or upper section 1 is a plurality of guide-spurs or lips 8, which guides are adapted to extend through the elongated guide-slots or apertures 9, formed vertically in the auxiliary or lower section 2.

It is to be noted that the inner prong or bracing-lip 5 is of greater length than the outer prong or bracing-lip, for strengthening the device when strain is placed thereon for pushing it inward at the top, and the slight bending of the outer prongs upward as at 5^a, Fig. 4, constitutes a lock, should a person try to fraudulently remove the shield by pushing on the sight-opening, for the harder or greater the strain on the top of the shield for pulling the same outward, the more the outer or inner prongs will bind against the top of the box.

A guard-casing or ring 10 is formed, preferably, on the front face of the primary or upper section 1, and contiguous to the outwardly-bulged portion 11 of the primary section or part 1. The outwardly-bulged portion 11 constitutes a reinforcing rib or socket in which fits the auxiliary outwardly-bulged portion 12 of the lower or auxiliary section or part 2; the outwardly-bulged portion 12 constitutes a vertically-extending reinforcing rib upon the lower or auxiliary section, and it will be seen that these portions 11 and 12 also perform the function of a guide, as well as strengthening the device,

if the sections are slidably mounted one upon the other; a portion of one section being positioned between portions of the other section.

5 To accommodate different size boxes, I, preferably, form, in a vertical plane, in the auxiliary section, or part, a plurality of transverse apertures 13; the apertures 13 being formed in the inner portion of the
10 outwardly-bulged part of the lower section. The primary or upper section 1 is only provided with a single aperture, which aperture is surrounded by the guard-casing or ring 10. The shank of a bolt 14 extends through one
15 of the apertures of the rear or auxiliary section and through the aperture of the front or primary section, and the nut 15 is threaded upon the outer end of the bolt and a spring cotter 16 is extended through the
20 projected end of the bolt, so as to prevent the nut from being threaded off the bolt, without the operator or person manipulating the device being provided with a special tool. Furthermore, it is to be understood
25 that a person can not quickly thread a nut off of the bolt when the same is positioned in my protecting and guarding casing 10, and, therefore, a special tool will have to be provided for removing the nut also, and in the
30 event a person fraudulently tries to remove the shield, he would have to be provided with a special tool, which in ordinary cases, is not convenient when a person attempts to steal the sponging or brasses, or the wedges
35 contained in box 3.

It is to be understood that I have provided the sections 1 and 2 with means for detachably securing them in an adjusted position, one upon the other, and that by
40 means of placing the bolt in different apertures 13 and the aperture on the front or primary section, different adjustments can be secured for accommodating boxes of different heights. Furthermore, the bolt-
45 structure stiffens the shield, besides strengthening the securing means for fastening the same together, although it will be understood that the auxiliary securing means constituted by the slots or elongated apertures
50 9 and the guide prongs 8 will retain the sections 1 and 2 in an assembled position, but not in an adjusted position for completely filling the journal box, as shown in Figs. 1 and 2. The elongated slots or apertures also
55 perform the function of sight-openings, whereby inspection of the sponging and of oiling is facilitated. Another advantage of the grooved or socketed structure formed by the portions 11 and 12 is that the head of
60 the bolt 14 is placed within a pocket and out of the way of the sponging, brasses or the axle, etc., Figs. 4 and 5.

My shield is provided with a series of bracing means, to wit: the central, vertical
65 rib-structure and the slots 9 and the guid-

ing means extending therethrough, whereby, while the sections are slidably mounted together, still they are securely fastened against lateral displacement, and when the bolt is in position, the sections are fastened
70 in an adjusted position.

Besides obviating the loss of the sponging and the other coöperating parts of a journal box, by the same being stolen when the car is standing on a siding or in the yards, my
75 device minimizes the loss of the sponging in boxes employed on cars that are used to convey or transfer molten slag, because if the slag or ore should spill over the sides, the same could not enter the box sufficiently
80 to burn the sponging or materially impair the efficient operation of the axle, or interfere to any material extent, with the journal.

It is to be noted that sections 1 and 2 constitute the body of my shield or device.
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It is to be understood that other advantages are accomplished by my invention, but the foregoing statements are sufficient to point out the essential features of the structure, and while I have specifically described
90 my preferred embodiment of the shield, as I now contemplate constructing the same, still it is to be understood that my invention contemplates such changes, modifications, and alterations as shall fairly fall within the
95 scope of the appended claims. It is also to be understood that my device will prevent oil from being thrown from out of the journal box by centrifugal force, as it is claimed by experts that fully 60% of the oil used
100 in oiling the journals is wasted in this manner, as is evidenced by the great quantity of oil strewn along the tracks on the ends of ties on all roads. It is also to be noted
105 that the apertures of the sides or sections of the shield will enable the inspectors to shove the sponging which has worked away from the journal into position at the sides of the journal.

What I claim is:
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1. The combination with a car journal box, of a shield located in said box, and consisting of an upper and a lower plate overlapping each other, the upper plate being
115 slidable on the lower plate, a bolt connecting said plates and having a nut on its outer end, and a guard shield surrounding the outer end of the bolt and the nut thereon, and guarding against operating the nut.

2. The combination with a car journal
120 box, of a shield located in said box, and consisting of an upper and a lower plate overlapping each other, the upper plate being slidable on the lower plate, and means for detachably fastening said plates in adjusted
125 position, the upper plate having on its upper edge pairs of prongs bent in opposite directions and engaging the top of the box and serving as a lock for the shield.

3. The combination with a car journal
130

box, of a shield located in said box, and consisting of an upper and a lower plate overlapping each other, the upper plate being slidable on the lower plate, the upper plate
 5 being provided at its top with a sight opening, and the lower plate with a plurality of elongated vertical sight openings, the upper plate having guide projections extending through said elongated sight openings, and
 10 means for detachably fastening said plates in adjusted position.

4. The combination with a car journal box, of a shield located in said box, and consisting of an upper and a lower plate overlapping each other, the upper plate being
 15 slidable upon the lower plate, and having on its upper edge pairs of prongs bent in opposite directions, the inner prongs being longer than the outer prongs, said pairs of prongs
 20 serving to lock the shield in place, said upper plate having a sight opening in its upper portion, and the lower plate having elongated vertical sight openings, means for detachably locking said plates in adjusted
 25 position, and means for guiding the upper plate upon the lower plate.

5. A device of the character described, comprising a primary and an auxiliary section, said primary section provided with a

sight-opening at one edge and with pairs of
 30 bracing and locking prongs upon one edge at opposite sides of the sight-opening, one of the prongs in each pair being bent upwardly for forming a lock, said auxiliary section provided with elongated slots or
 35 apertures, said primary section provided with a pair of horizontal guiding prongs extending through the elongated slots of the auxiliary section, said primary section provided with an outwardly-bulged or square
 40 portion, said auxiliary section provided with a projecting or bulging portion positioned in the squared portion of said primary section, a bolt extending through the socketed bulged portions of said sections, a nut
 45 threaded upon the outer end of said bolt, and a spring-cotter extending through the projecting end of the bolt outside of said nut, and said primary section provided with an integral guard casing surrounding the nut
 50 and the spring-cotter.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

LOUIS E. KELLER.

Witnesses:

J. D. TRAX,

FRED A. STECK.