

chamber thus constructed permits auxiliary pads to store surplus oil to be renewed, as the waste may be in the waste-holder, from the open box end in position on the axle.

5 Now, having described my invention, what I claim is—

1. The within-described improvements in car-axle boxes, consisting of a waste-holder, F, having inclined sides to leave a reduced bottom, having sides *f*, adapted to extend upon either side of the journal D, provided with lips *g*, arranged to come outside of the axle end, and having perforations to admit the oil, combined and arranged with a journal and oil-chamber, substantially as shown, to adapt it, when filled, to supply waste for a time beneath the journal, and to be operated by the oil in agitation to have said waste brought in contact with the journal, for the purpose set forth.

2. In a car-axle box, the improved door or cap consisting of the sections G and J, provided with parallel hinges at opposite ends thereof, and combined to have the free end of section J bear upon that of the section G and form therewith a latch, consisting of a recess, *h*, and bearing-surface *o*, and bolt K, socket *p*, and nut *q*, adapted, substantially as shown, to form a means of clamping the two sections upon their hinges to the box through the longitudinal movement of said bolt.

3. In a car-axle box, a circumferential rim, *s*, upon the rear end of the box, an annular flange, V, having its rim-surface within the plane of the rim *s*, an annular cavity, N, concentric to and within the flange V, a car-wheel, Y, having a flange, X, entering cavity N when the box and car-wheel are combined with the axle D, and a web, W, adapted to have its inner edge come close to the outside of flange X, and means, substantially as shown and described, for clamping the web W against the rim *s* and upon the flange V, as and for the purpose set forth.

4. In a car-axle box, a dust-guard, as W, upon the rear end of the box, and adapted to

act in conjunction with the outer wall of a car-wheel flange, X, an annular cavity, N, in its rear face concentric to the axle D, and adapted to receive the flange X of a car-wheel, and having an inner wall, *x*, provided with a shoulder, *u*, at its base, and with a bottom sunk below said shoulder, and an elastic washer adapted to hug the wall *x*, bear against the shoulder *u*, and be deflected by the car-wheel flange X, substantially as and for the purpose set forth.

5. In a car-axle box, the combination, with an edge rim, *s*, and annular bearing V, near the flange X of a car-wheel, and with a cavity, N, formed substantially as shown and described, of a web, W, secured, substantially as shown, to rim *s* and bearing V, to close against flange X, and a washer of corresponding thickness, with its outer rim corresponding in outline with the inner rim of said web, and arranged, as shown, in cavity N, to have its base in a plane parallel to that of the web, and its perimeter deflected by the car-wheel from its base, substantially as set forth.

6. The within-described auxiliary waste-holder for a car-axle box, consisting of a web, C, flange *e*, and lugs T from the side walls of the box, upon either side of the axle, removed from the same, and having a space, *e'*, between their lower edge and the web C, all combined and operating as and for the purpose shown and described.

7. In a car-axle box, an oil-chamber below the axle and separated therefrom by a web having an opening therein, a waste-holder adapted to rest in said oil-chamber, and provided with sides inclosing the axle, and two lugs, T, upon either side of the axle, removed from the same and adapted to form, substantially as shown and described, stops to limit the upward movement of the box relative to the axle, as and for the purpose set forth.

SUMNER A. BEMIS.

Witnesses:

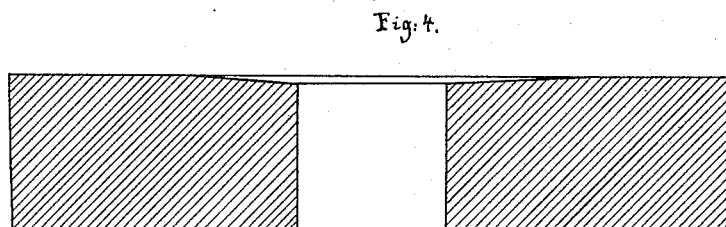
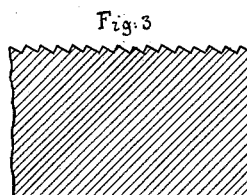
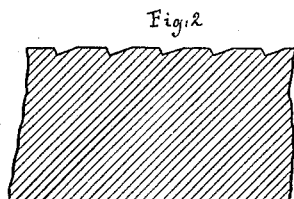
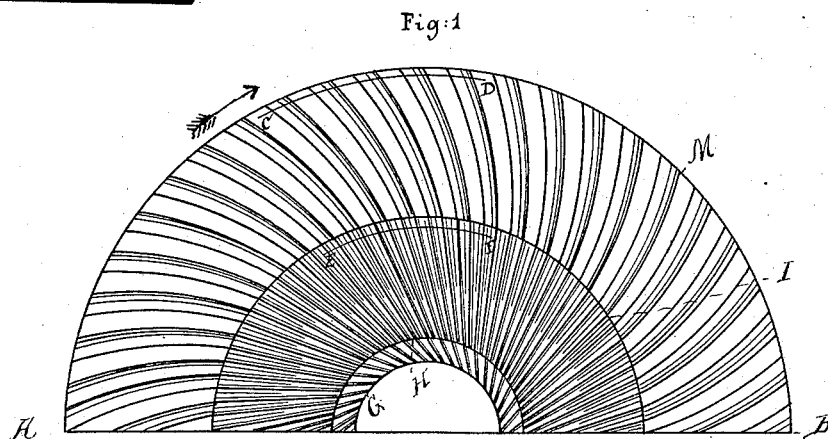
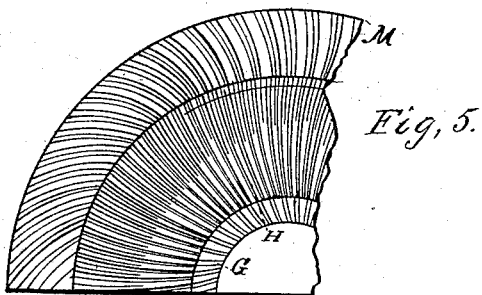
R. F. HYDE,
J. D. GARFIELD.

(No Model.)

G. BERNARD.
MILLSTONE DRESS.

No. 306,573.

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Witnesses
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