

No. 680,388.

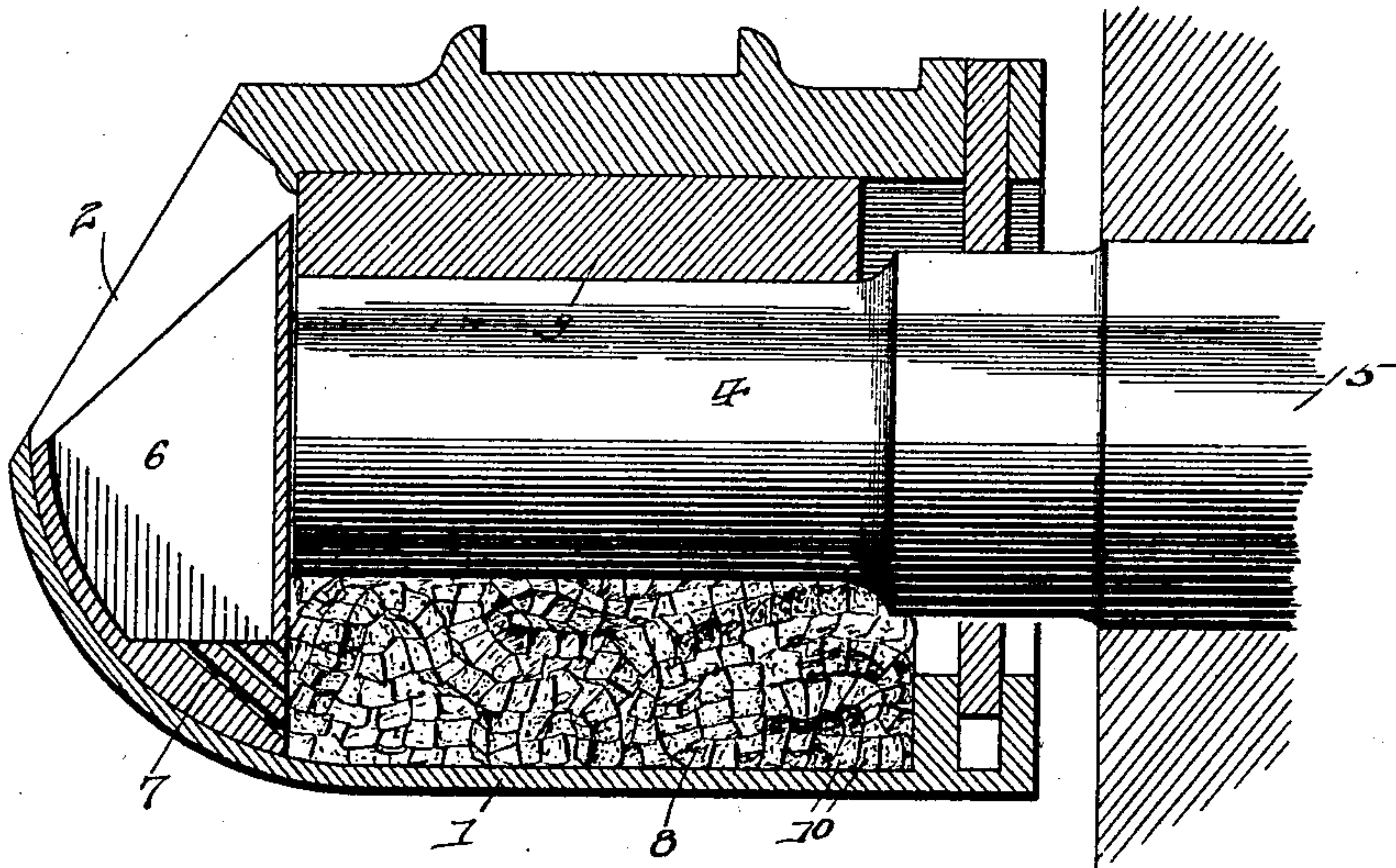
Patented Aug. 13, 1901.

T. H. McCauley.  
AXLE LUBRICATOR.

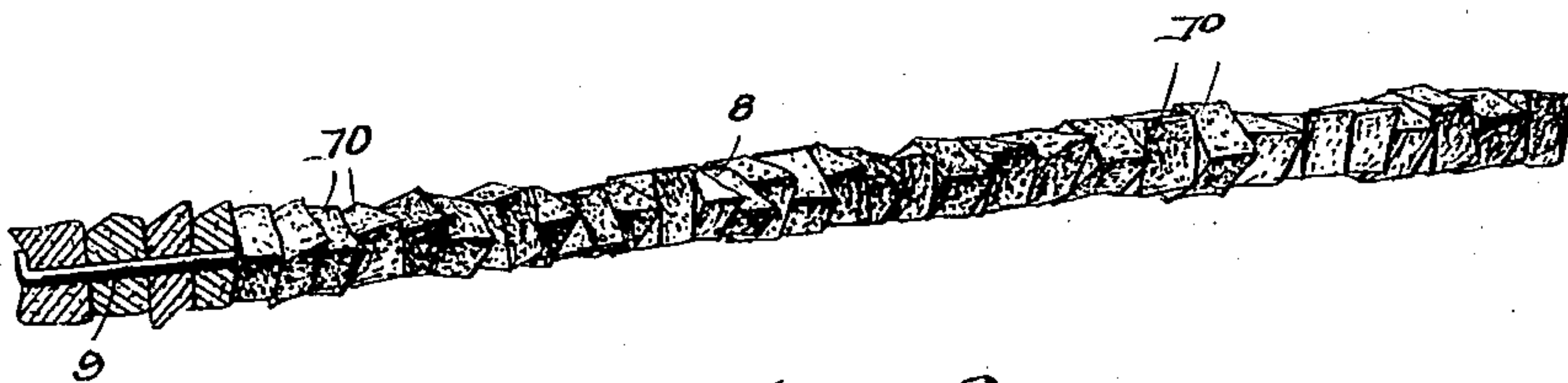
(Application filed Aug. 25, 1900.)

(No Model.)

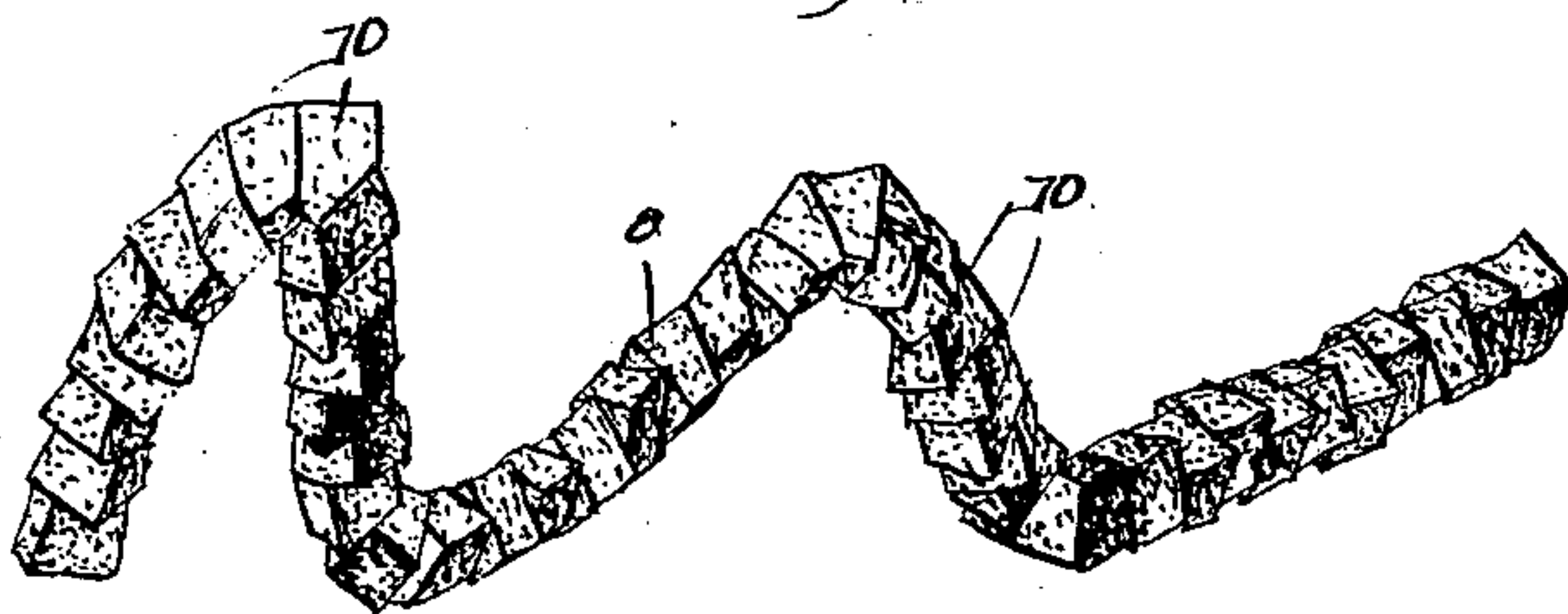
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

E. H. Walker  
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# UNITED STATES PATENT OFFICE.

THOMAS HENRY MCCAULEY, OF PORT ARTHUR, CANADA.

## AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 680,388, dated August 13, 1901.

Application filed August 25, 1900. Serial No. 28,054. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS HENRY MCCAULEY, a subject of the Queen of Great Britain, residing at Port Arthur, in the Province of Ontario and Dominion of Canada, have invented a new and useful Car-Axle Lubricator, of which the following is a specification.

My invention is an improved car-axle lubricator, one object of my invention being to provide a resilient oil-absorbing packing material which by its elasticity will keep in contact with the spindle of the car-axle and supply the same with lubricant from the axle-box.

A further object of my invention is to provide means for keeping the packing material in place in the car-axle box and to permit the ready insertion of said packing material therein and its removal therefrom.

My invention consists in the peculiar construction and combination of devices herein-after fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view of a car-axle box provided with a closure and a packing material embodying my invention. Fig. 2 is a detail perspective view, partly in section, of my improved car-axle-box packing. Fig. 3 is a similar view of the same.

The axle-box 1 has its outer end open. The bearing-surface 3 in the upper side of the axle-box is of the usual construction and bears upon the upper side of the spindle 4 of the car-axle 5. A removable closure 6 is placed in the front end of the car-axle box and bears against the outer end of the spindle of the car-axle. The said closure is adapted to be inserted and removed through the opening 2 and is of suitable form to enable it to fit snugly in the front end of the car-axle box, as shown, and is disposed at the outer end of the axle-spindle. Preferably the said removable closure is hollow and is weighted in its lower side, as at 7. The said closure serves to keep the packing 8 in place in the lower side of the car-axle box under the spindle of the axle and prevents the packing from being displaced and "crawling" out beyond the end of the axle-spindle, and the bottom of the closure is perforated to admit oil to the packing. The hollow form of the closure adapts

it to form a reservoir to hold the oil placed therein. In practice the opening 2 at the outer side of the axle-box is provided with a suitable cover, as is usual, but the cover is not here shown and forms no part of my invention.

The axle-box packing 8 comprises a wire core 9 of suitable length, on which are strung pieces of suitable oil-absorbing material 10, which pieces may be made of felt or other suitable substance. Thereby a length of packing is formed, as shown in Fig. 2, and the relative dimensions of the said packing material and the said wire core are such that the said length of packing may be bent and doubled upon itself, as shown in Fig. 3, while being crowded into the car-axle box and disposed in such shape as to entirely fill the lower side of the car-axle box, as shown in Fig. 1. The said wire 9, which forms the core of the axle-box packing, is a spring-wire, the inherent elasticity of which, while permitting of the doubling and bending of the packing as the same is placed in the car-axle box, serves to keep the packing "alive" and in contact with the lower side of the axle-spindle and prevent the same from settling in the lower side of the car-axle box and receding from the axle-spindle. The said packing becomes saturated with the oil or other lubricant in the car-axle box and serves to apply the same to the spindle of the axle as the same is needed as long as any of the oil remains in the box. Hence the box and axle-spindle are prevented from heating, as will be understood.

I do not desire to limit myself to the precise construction of the packing hereinbefore described, as the same may be modified within the scope of my invention.

Any suitable absorbent material may be substituted for the felt, and the absorbent material may be woven on the wire or secured between two wires by twisting the latter together. Any suitable kind of cloth having one or more spring-wires disposed therein may be also employed. Other modifications may also may be made.

Having thus described my invention, I claim—

1. A car-axle-box packing comprising a



length of elastic packing material capable of absorbing oil and a longitudinally-disposed stiffening-core, as a wire in the said length of packing material, the relative dimensions of said core and packing material thereon being such as to adapt the said packing to be bent and doubled upon itself and crowded in a mass into a car-axle box so as to bear against the journal of the axle, substantially as described.

2. An elastic car-axle-box packing comprising a length of wire forming a core and pieces of absorbent material strung on the said core, the relative dimensions of said core and said packing material being such as to adapt said packing to be bent and doubled upon itself and crowded into car-axle box so as to bear against the journal of the axle, substantially as described.

3. An elastic car-axle-box packing comprising a length of spring-wire forming a core and pieces of absorbent material strung on the said wire, the relative dimensions of said core and said packing material being such as to adapt the said packing to be bent and doubled upon itself and crowded into a car-axle

box so as to bear against the journal of the axle, substantially as described.

4. A car-axle box having a removable closure in its outer end, and bearing against the outer end of the axle-spindle, said closure being adapted to bear against packing material in the said car-axle box and prevent said material from being displaced from under said spindle, substantially as described.

5. A car-axle box having a removable closure in its outer end, and bearing against the outer end of the axle-spindle, said closure being adapted to bear against packing material in the said car-axle box and prevent said material from being displaced from under said spindle, said closure forming an oil-receptacle and being perforated to feed oil to the packing, substantially as described.

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

THOS. HENRY McCAULEY.

Witnesses:

W. McBRADY,

ARTHUR E. ROBERTS.