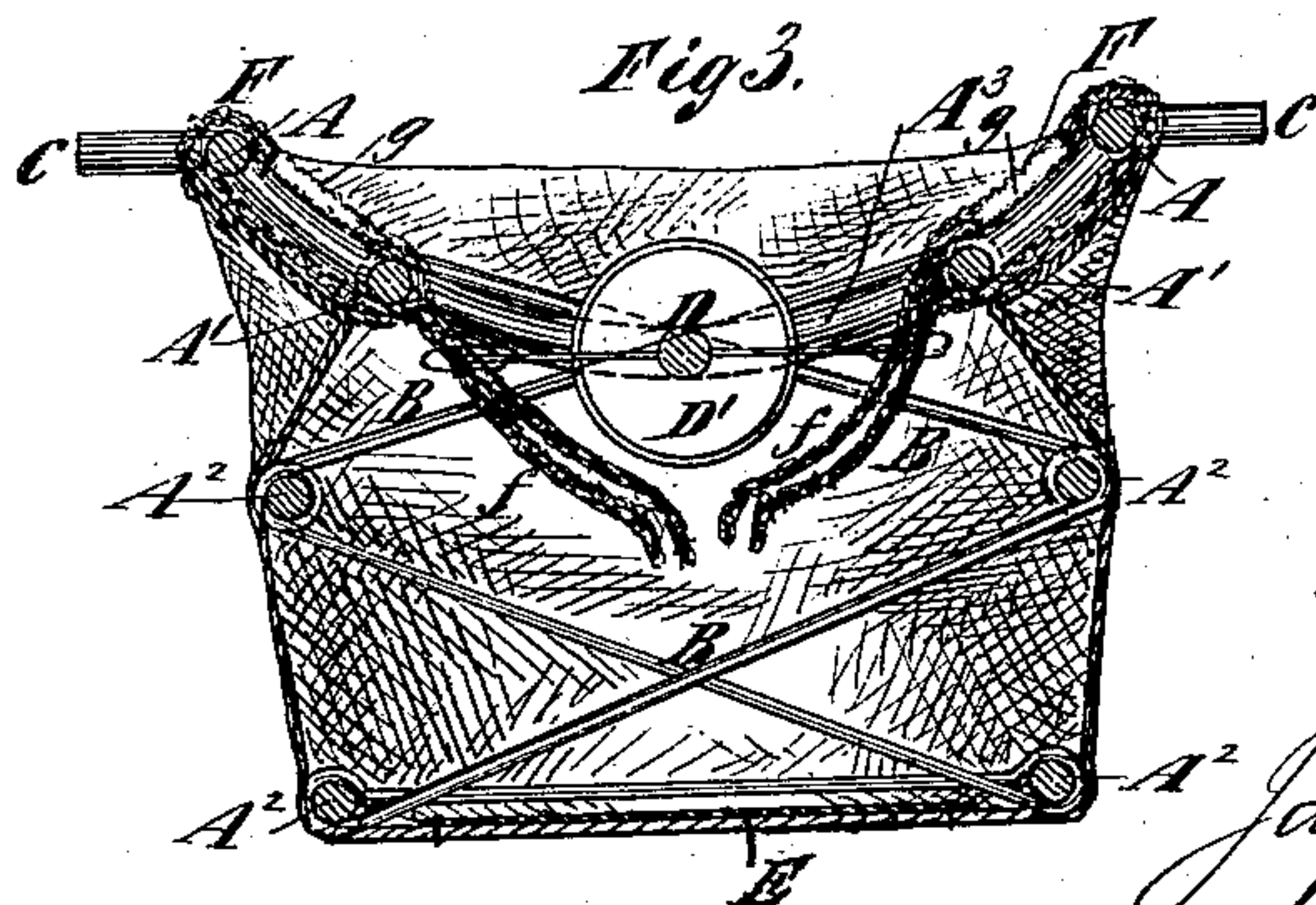
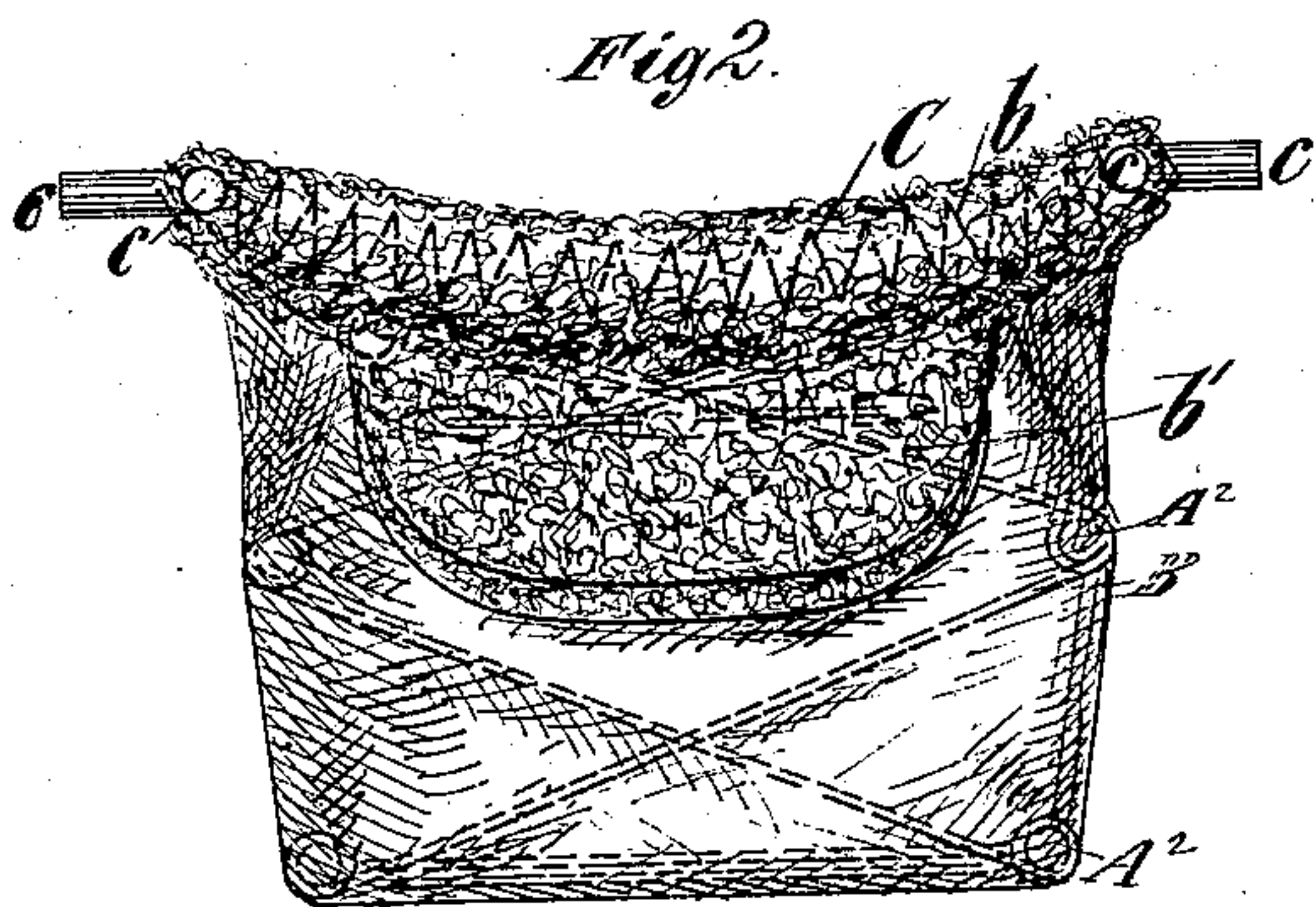
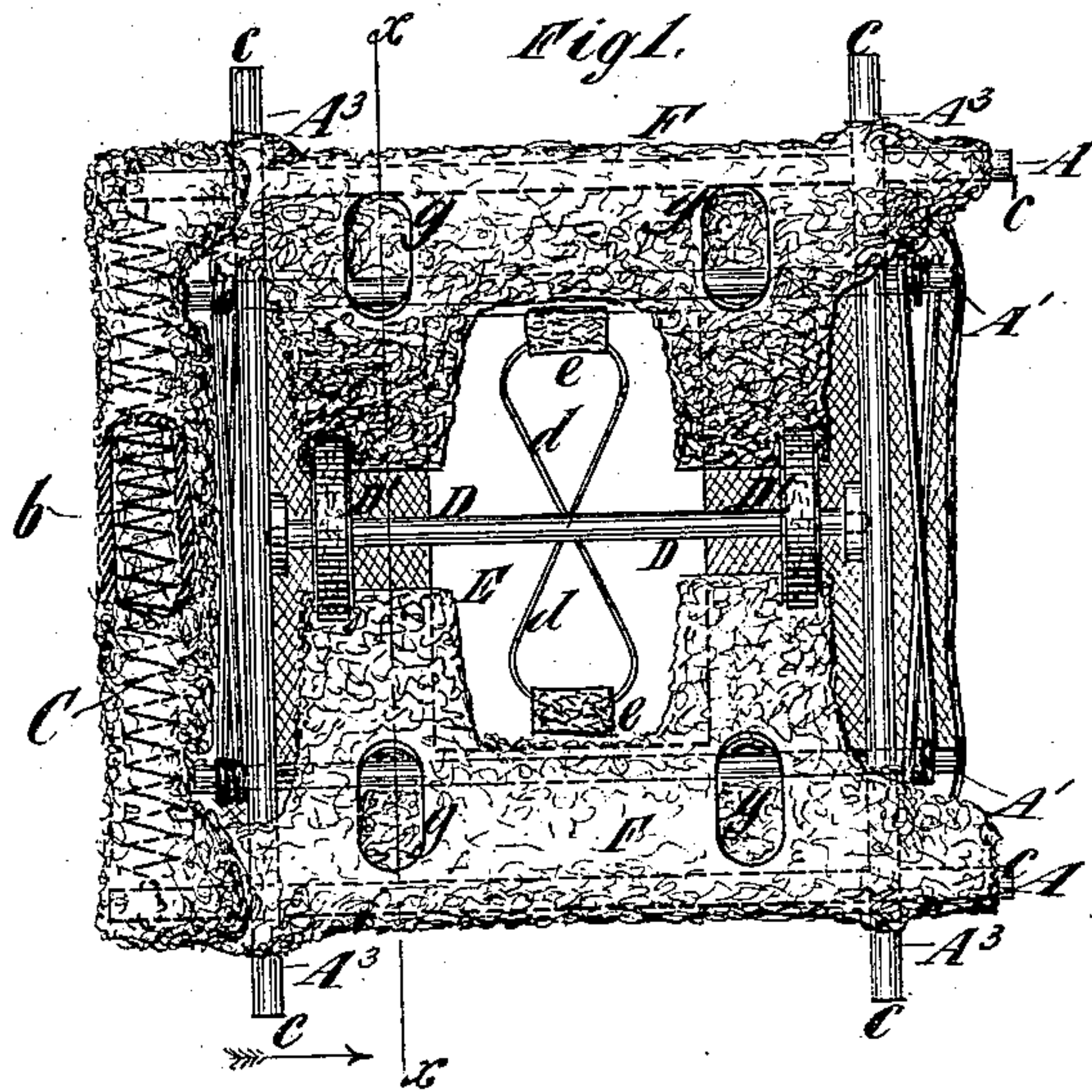


(No Model.)

J. D. MERRITT.  
Car Axle Box Oiler.

No. 236,057.

Patented Dec. 28, 1880.



Witnesses  
John Becker  
Jas. H. Hays

Inventor:  
James D. Merritt  
By his Attorneys  
Brown & Brown



# UNITED STATES PATENT OFFICE.

JAMES D. MERRITT, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO  
CIVILION FONES, OF BRIDGEPORT, CONN.

## CAR-AXLE-BOX OILER.

SPECIFICATION forming part of Letters Patent No. 236,057, dated December 28, 1880.

Application filed October 8, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES D. MERRITT, of the city, county, and State of New York, have invented certain new and useful Improvements in Car-Box Oilers, of which the following is a specification.

My invention relates to car-box oilers which consist of metallic skeleton frame-work covered with woolen.

10 The invention consists in a novel construction of an elastic wiper, which is pressed up against the axle on the outside of the oiler and prevents the passage of oil outward, as well as the passage of dust and dirt inward.

15 It also consists in the combination, with a shaft adapted to be rotated by frictional contact with the axle, of a novel form of lapper and swab for oiling the axle.

20 It also consists in the combination, in an oiler with the metallic spring frame-work, of pads adapted to bear upon opposite sides of the axle and provided with perforations through which oil may run back into the box.

25 It also consists in the combination, with a rotary shaft and attached metallic lappers and swabs, of a metallic shield or guard-plate, to prevent the metallic lappers from wearing out the woolen covering at the bottom of the oiler.

30 In the accompanying drawings, Figure 1 represents a plan of an oiler embodying my invention. Fig. 2 represents an end view thereof; and Fig. 3 represents a transverse section upon the dotted line *x x*, Fig. 1.

35 Similar letters of reference designate corresponding parts in all the figures.

40 The frame-work of my oiler is composed of longitudinal rods or bars *A*, *A'*, and *A<sup>2</sup>* and cross rods or bars *A<sup>3</sup>*, which unite the rods or bars *A* *A'* upon opposite sides of the oiler. At each end of the frame is a bent spring or springs, *B*, which are composed of wire, and which tend to raise or expand the frame in a vertical direction. The frame-work of the oiler is surrounded or concealed by a woolen covering, *a*, which excludes any dirt which may get into the axle-box.

45 Extending across the front end of the oiler-frame is a wiper, *C*, composed of a spiral spring, *b*, connected at each end to the metallic frame, but otherwise unsupported, and a woolen cov-

ering, which is extended down the front in a flap, *b'*, the capillary attraction of which will draw up oil, and down which the oil will run to the lower part of the box. This wiper prevents oil from running upon the axle outside 55 the box, and prevents the entrance of dust and dirt.

In order to properly guide the oiler and adapt it for car-boxes of various sizes, I construct the frame with outwardly-projecting arms, rods, or 60 ears, *c*, which may be of considerable length, and be cut off so as to suit boxes of different sizes. When cut to the proper length these rods, arms, or ears form guides to prevent the lateral movement of the oiler in the axle-box. 65

*D* designates a spindle or shaft, which is free to rotate in bearings attached to or formed in the cross-bars *A<sup>3</sup>*, and to which are fixed small wheels, *D'*, which are packed with leather or other material at the periphery, and are 70 adapted to be rotated with the shaft by frictional contact with the axle.

To the spindle or shaft *D* are attached metallic lappers *d*, made in the form of loops, and carrying at the open ends swabs *e*, of 75 woolen or other soft material, which, as the spindle or shaft is rotated rapidly by the rotating axle, take up the oil and throw it upon the axle. The lappers *d*, made in the form of loops, are very desirable, as their open rounded 80 free ends will, when drawn through the oil, raise the oil with much greater rapidity than would straight lappers, such as bristles or hair. When the frame of the oiler is contracted by the weight of the axle the metallic lappers *d* 85 will strike upon the bottom of the oiler; and, to prevent the woolen covering from being rapidly worn through, I attach thereto a sheet or plate metal guard or shield, *E*, upon which the lappers bear. 90

*F* designates pads attached to the upper part of the frame upon each side of the axle, and upon which the axle bears. These pads are provided with downwardly-extending flaps *f*, which draw up the oil by capillary action and 95 saturate the said pads. In order to check the flow of oil when these pads become dry and glazed, I make in them perforations *g*, through which the oil may return into the box.

By my invention I provide for uniformly 100

oiling all parts of the journals, and produce an oiler from which the oil cannot readily escape nor dust and dirt enter.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the metallic frame-work, of the elastic wiper C, composed of a spiral spring, *b*, attached at each end to said frame-work, but otherwise unsupported, and  
10 a woolen covering for said spring having a flap, *b'*, extending therefrom, substantially as specified.

2. The combination, in a car-box oiler, of a shaft, and friction-wheels attached thereto and  
15 adapted to bear upon the axle, one or more wire lappers fixed in said shaft and bent to form loops at their free ends, and swabs upon the loops of said lappers, substantially as specified.

3. The combination, with the metallic spring frame-work of a car-box oiler, of pads F, adapted to bear upon opposite sides of an axle, and constructed with perforations *g*, substantially as and for the purpose specified.

4. The combination, with the frame-work of  
25 a car-box oiler, of a woolen covering therefor, a shaft adapted to be rotated by the axle, metallic lappers provided with swabs, and a metallic guard-plate or shield to protect the woolen covering from the wearing action of the me-  
30 tallic lappers, substantially as and for the purpose specified.

J. D. MERRITT.

Witnesses:

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