

No. 682,594.

Patented Sept. 10, 1901.

D. D. FRISBEE.
APPARATUS FOR OILING FELLIES.

(Application filed June 24, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

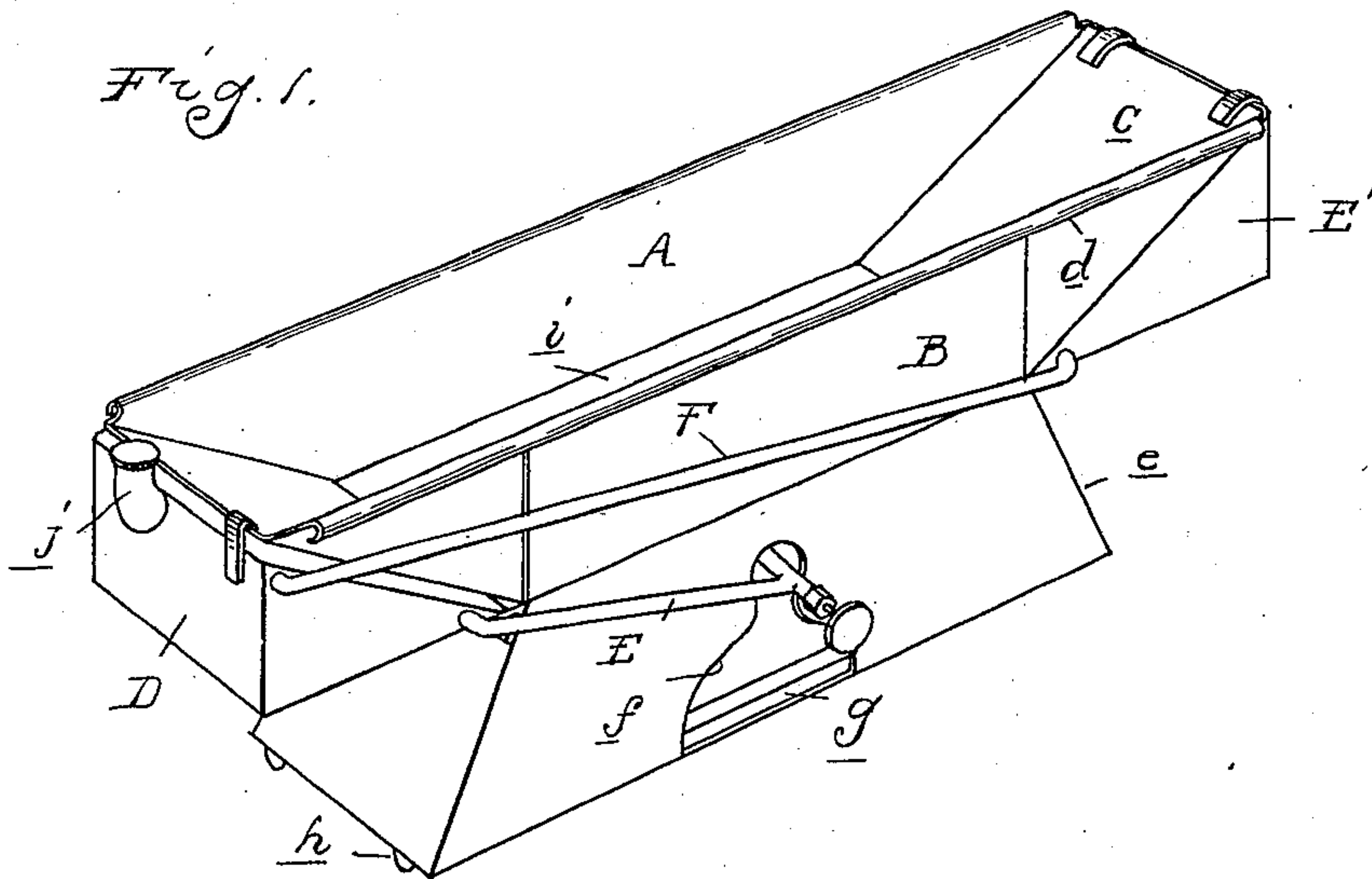


Fig. 2.

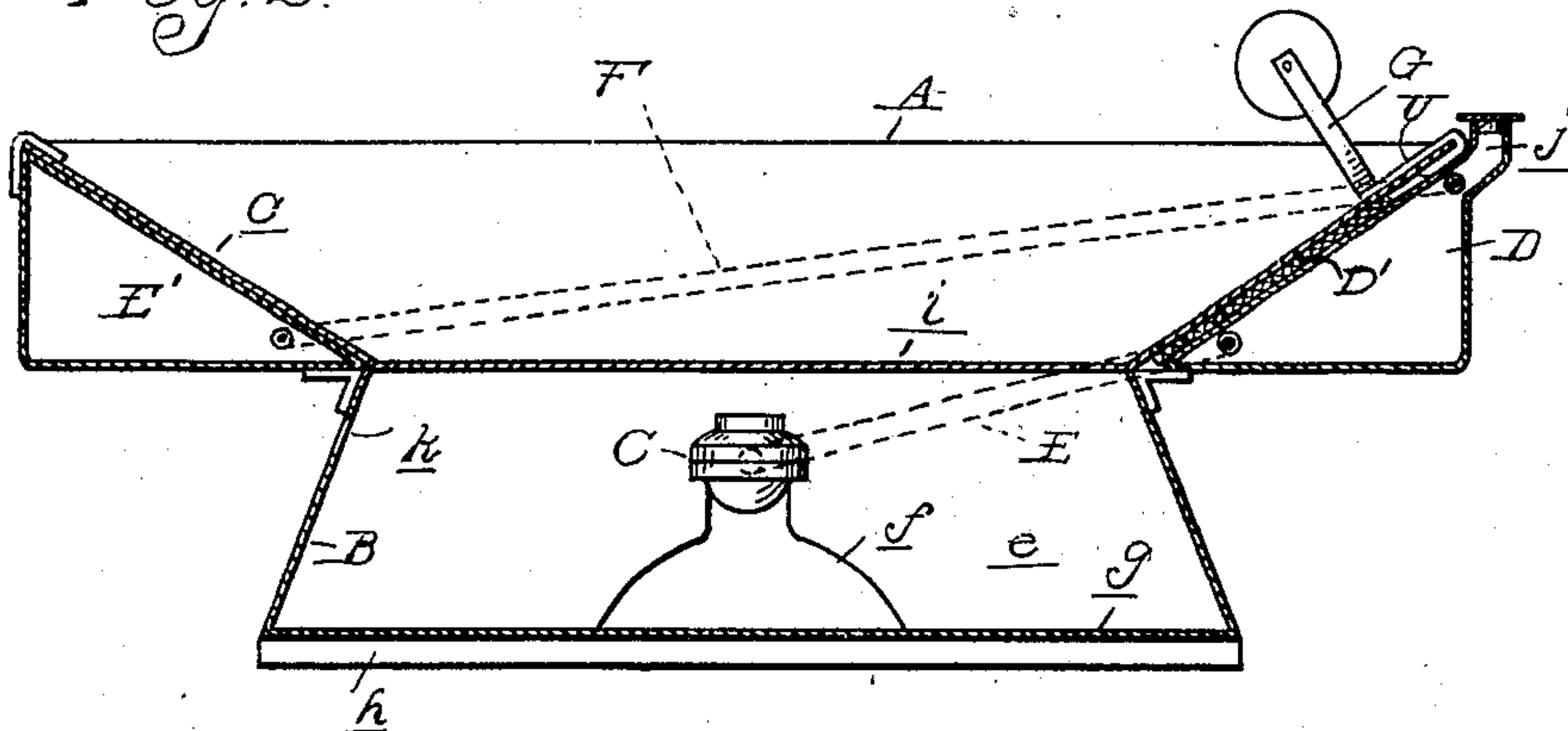
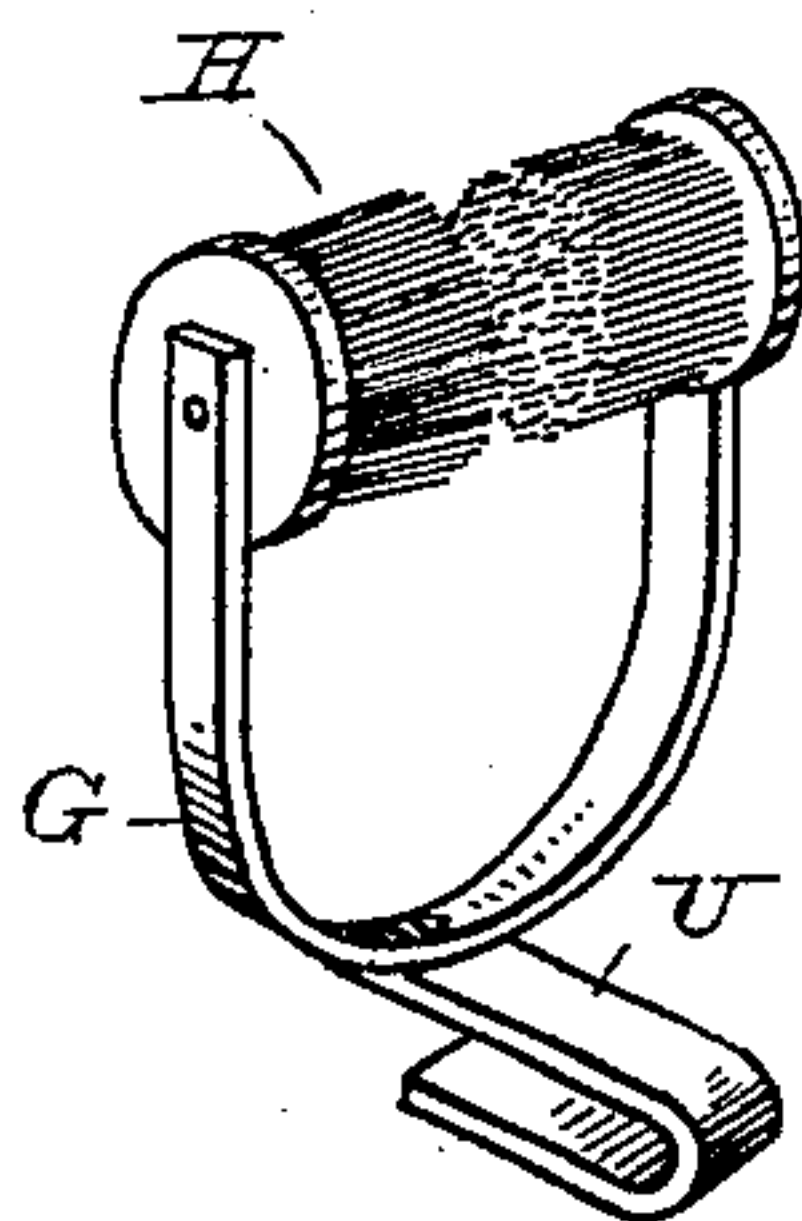


Fig. 3.



Witnesses
H. C. Smith.
W. B. O'Connell.

Inventor
Daniel D. Frisbee
B. C. Magnusson
Attys.

No. 682,594.

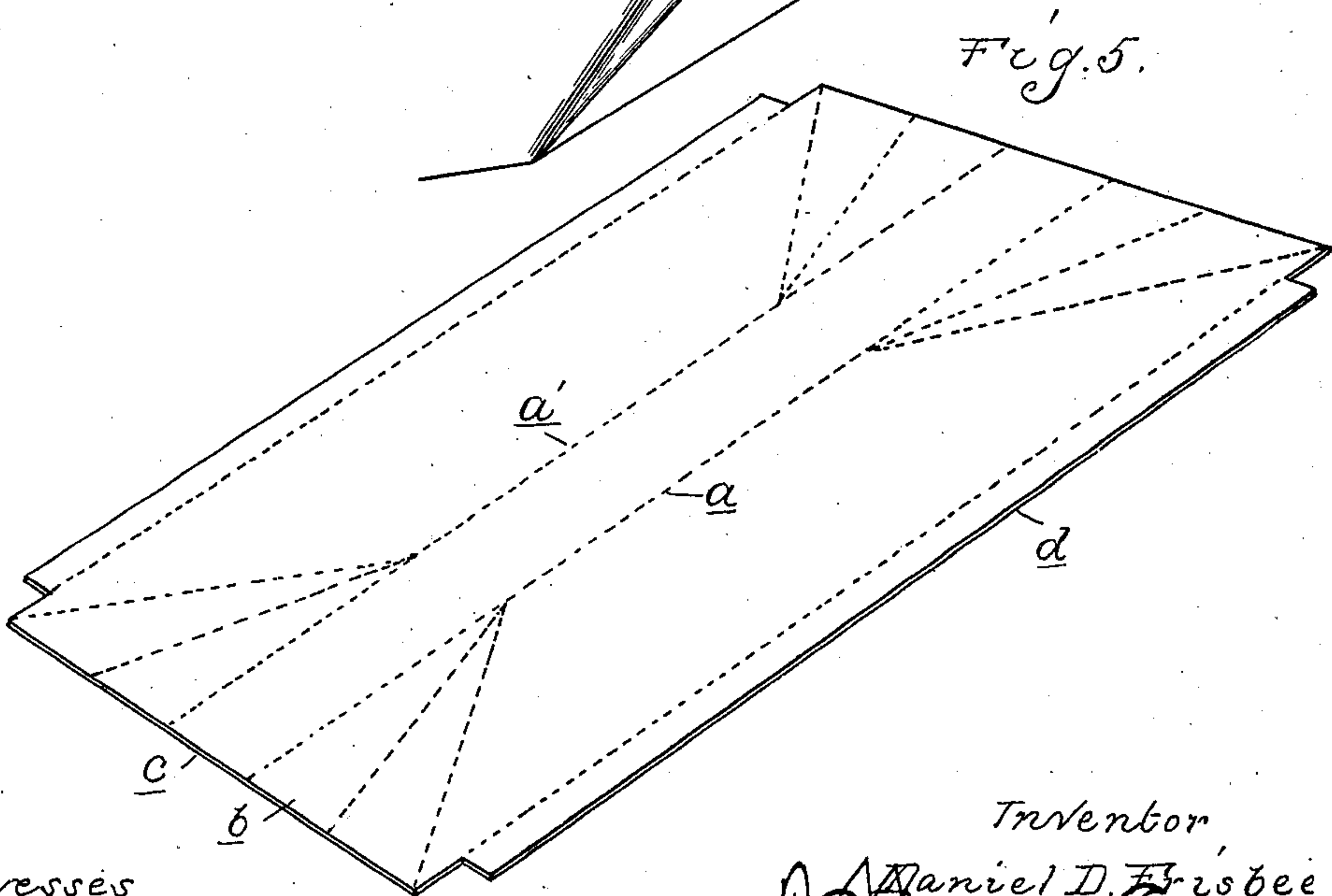
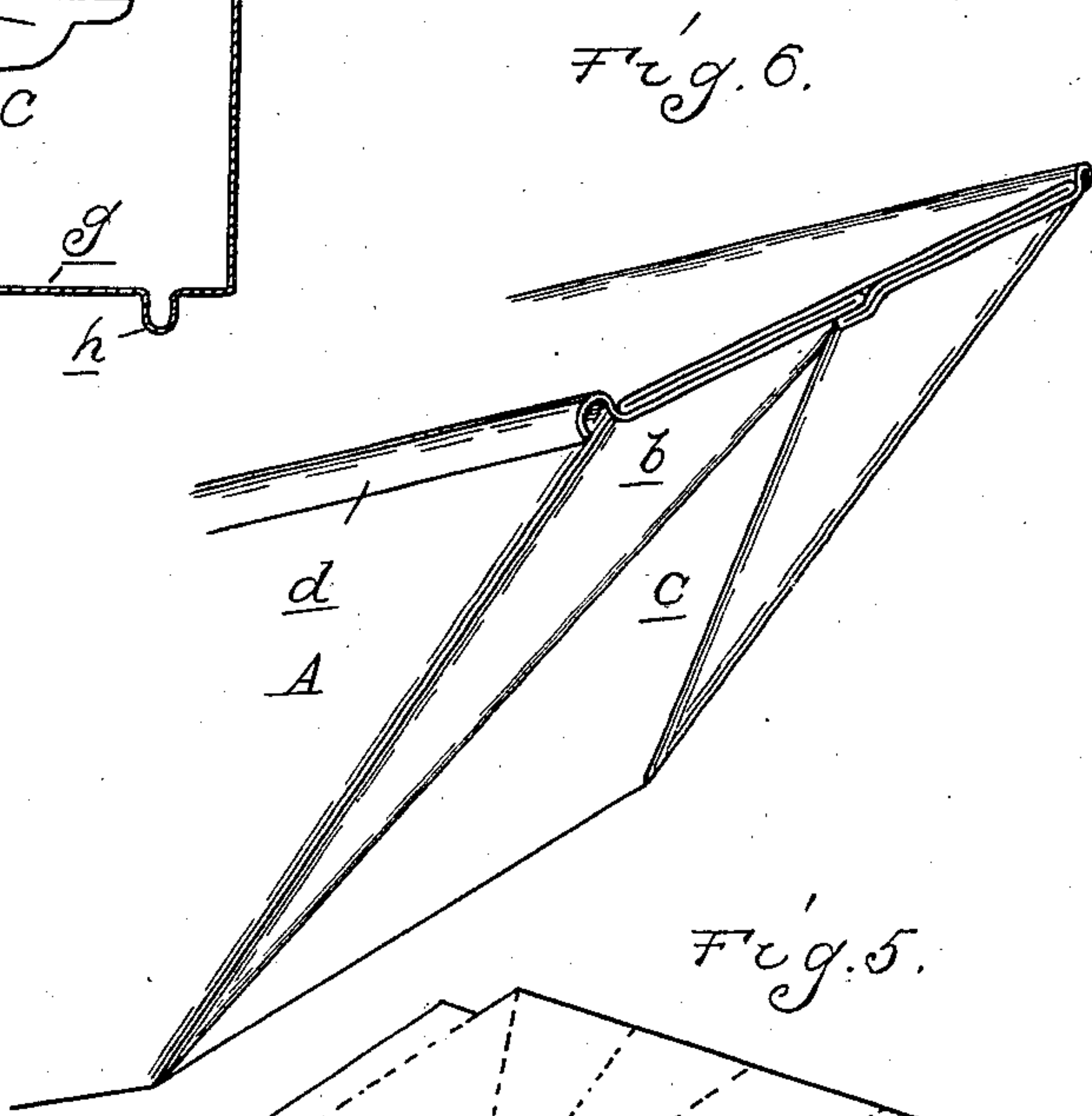
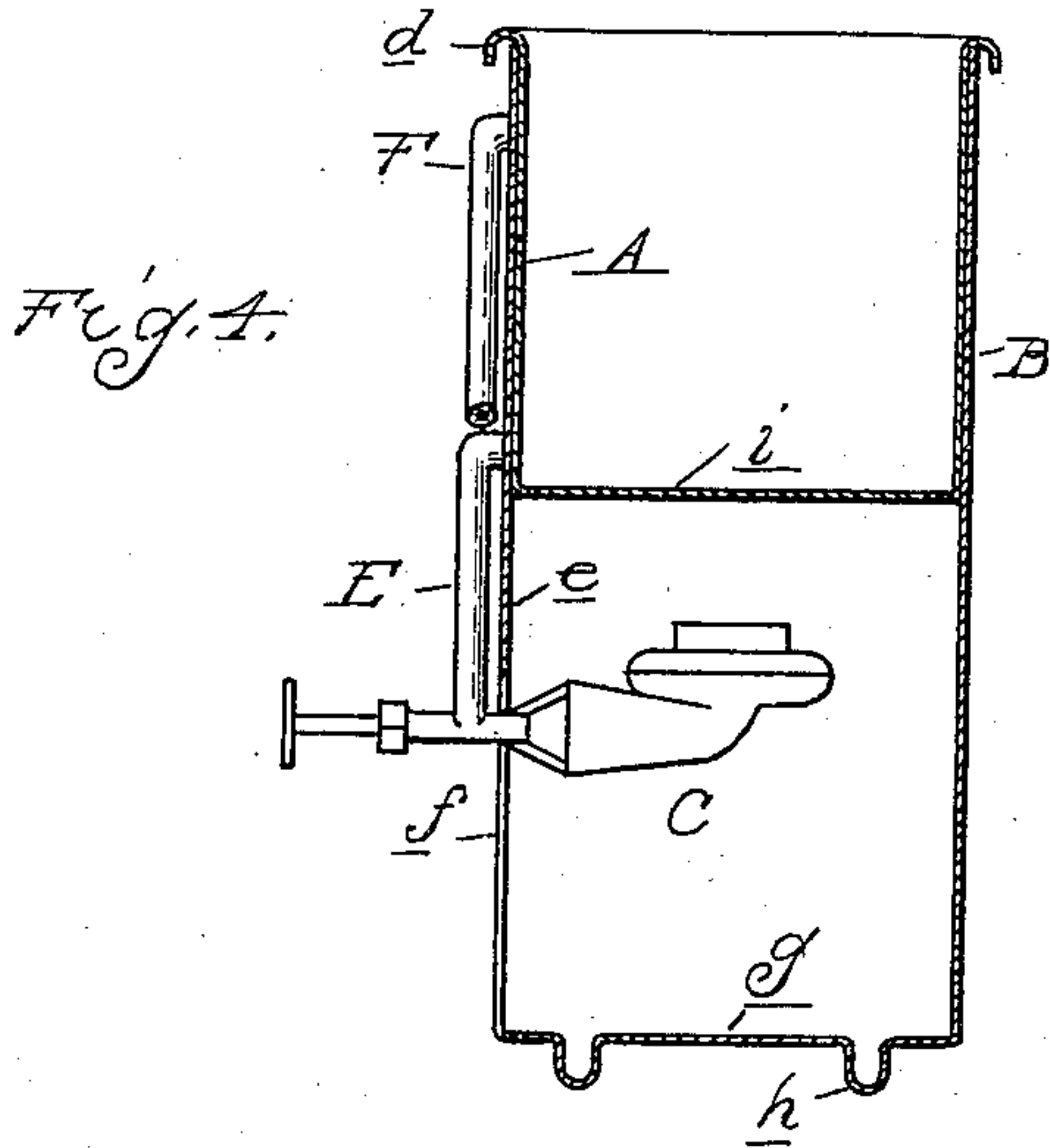
Patented Sept. 10, 1901.

D. D. FRISBEE.
APPARATUS FOR OILING FELLIES.

(Application filed June 24, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses
B. Smith
W. B. O'Leary

Inventor
Daniel D. Frisbee
By *[Signature]*
Attys.

UNITED STATES PATENT OFFICE.

DANIEL D. FRISBEE, OF DETROIT, MICHIGAN.

APPARATUS FOR OILING FELLIES.

SPECIFICATION forming part of Letters Patent No. 682,594, dated September 10, 1901.

Application filed June 24, 1901. Serial No. 65,770. (No model.)

To all whom it may concern:

Be it known that I, DANIEL D. FRISBEE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Apparatus for Oiling Fellies, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to a device for saturating the felly of a vehicle-wheel with oil, thereby preventing the subsequent drying and shrinking of said felly, and thus preventing the tire from loosening.

15 It is the object of the invention to obtain a simple construction of apparatus for the purpose above described and one in which the parts are compactly arranged, so that it may be placed in a small space for storing or shipping.

20 The invention consists in the construction as more fully hereinafter described and claimed.

25 In the drawings, Figure 1 is a perspective view of the device. Fig. 2 is a longitudinal section therethrough. Fig. 3 is a perspective view of the wiper detached. Fig. 4 is a central cross-section. Fig. 5 is a perspective view of the sheet-metal blank from which the tank is formed. Fig. 6 is a perspective view showing a portion of said tank and the manner in which the blank is folded to form the same.

30 The device comprises, essentially, a tank or trough of suitable dimensions to receive a portion of the felly of an ordinary vehicle-wheel and also adapted to hold a suitable quantity of oil. Below this tank is arranged an oil or vapor burner for heating the oil in the trough, which burner is protected by an inclosing casing.

35 In constructions previously made it has been customary to employ a gasoline-burner for heating the tank, which burner is connected with a gasoline-holder arranged above the level of the oil-trough. Such an arrangement is objectionable, for the reason that the gasoline-tank is in the way, and if accidentally hit by the wheel in introducing or removing the latter from the trough it may result in overturning the apparatus. Another objection is that the device provided with an elevated tank cannot be conveniently stored

or packed for shipment, and if the tank is removed there is danger of its becoming misplaced.

55 It is one of the objects of the present invention to obtain a construction in which the gasoline-tank is compactly arranged in a position where it will not increase the necessary size of the packing-box and where it will not interfere with the stability of the apparatus when in use.

60 Another object of the invention is to provide a simple construction of wiper, whereby the oil adhering to the felly after immersion in the trough may be easily wiped off.

65 As shown in the drawings, A is an oil-trough. This is preferably formed from a single blank of sheet metal, (shown in Fig. 5,) which is folded, as indicated in dotted lines, so as to form a seamless receptacle. In thus forming the trough the blank is folded upon the dotted lines *a* and *a'*, which are parallel with the edges of the blank, so as to form the bottom and side sections. Gores *b* are then folded at the four corners, so as to form inclined ends *c*. The upper edges of the sides have flanges *d*, turned outward, which are adapted to rest upon the supporting-casing B. The latter is also preferably formed of sheet metal and is of substantially rectangular shape, the opposite sides *e* being cut away near the bottom, as at *f*, to form air-inlets for the burner. The casing B is also provided with a bottom *g*, which has the longitudinally-extending ribs *h* bent therein, which serve to hold the bottom above the floor and prevent overheating of the latter.

80 C is a burner, which may be of any suitable construction and is arranged centrally beneath the bottom section *i* of the trough A and within the casing B.

85 D is a gasoline-tank, which is arranged in a space beneath one end of the trough and outside of the casing B. In order to compactly fit within this space, the tank is preferably of substantially triangular form. It is also provided at its upper end with a suitable fill-opening *j* and cap for closing the same. In order to prevent too great heating of the gasoline within the tank, the inclined wall of said tank is preferably slightly separated from the adjacent wall of the trough A, and, if desired, suitable non-conducting ma-

terial D' may be placed between, as shown in Fig. 2. A slight heating of the tank is not, however, objectionable, and, in fact, is desirable, as it serves to increase the pressure within the tank and assists in feeding the oil therefrom. The tank D is connected with the burner C by a suitable conduit, such as E, which is connected at the lower angle to the tank. Inasmuch as the tank D is but slightly elevated above the burner C, gravity alone may not be sufficient to feed the oil in proper pressure to the burner. An increased pressure may be obtained by the heating of the gasoline within the tank from the heated surface of the adjacent trough, as before described; but in order to still further increase this pressure the corresponding tank E' may be arranged at the opposite end of the trough A. This tank may also contain a certain quantity of gasoline, but is designed, primarily, as an air-tank employed for developing an air-pressure to feed the gasoline from the tank D. This air-pressure may be obtained in any suitable way, as by the expansion of the air within the chamber through the heating of the same. The necessary heat for increasing the pressure of oil within the tank E' is obtained partly by placing said tank in contact with the inclined end of the trough A and partly by the discharge of heated air from the casing B through apertures *k* in the end wall of said casing adjacent to the tank E'. The tank E' is connected to the tank D by a pipe F, which preferably connects with the tank D at the upper corner thereof.

In operation a suitable quantity of the oil for saturating the wheel-felly is placed in the trough A, and the tank D is also filled with gasoline. The burner C may then be started in the usual way, which will heat the oil in the trough to a proper temperature. As the heat in the trough increases it will expand the air in the tank E' and assist in feeding the gasoline into the burner. The operator may now place the wheel in the trough and by slightly turning it will thoroughly im-

pregnate all portions of the felly with the heated oil.

In order to prevent the smearing of the spokes of the wheel with the oil adhering to the felly in running down said spokes, a wiper is provided, which is of the following construction: G is a U-shaped frame, preferably formed of metal and provided at its free ends with oppositely-arranged brushes H. At the center of the U is arranged a clip U, which is adapted to slip over the end of the trough, as shown in Fig. 2. This will hold the frame G in such position that the operator in rotating the wheel can draw the felly between the brushes H, which will wipe off all adhering oil.

What I claim as my invention is—

1. The combination with a trough, having the bottom thereof inclined upward at the sides, of a casing arranged beneath the central portion of said trough and supporting the same, a triangular tank for the burning oil arranged outside said casing and beneath one of the upwardly-inclined ends of said trough, a burner within said casing and a connection between said burner and burning-oil tank.

2. The combination with a trough, having oppositely-projecting ends, a burner beneath the same and a casing surrounding said burner beneath the central portion of said trough, of oil and air tanks arranged respectively beneath the opposite projecting ends of said trough, without said casing, a connection between said air-tank and the upper portion of said oil-tank, and a connection between the lower portion of said oil-tank and said burner whereby the expansion of air due to the heat from said burner will assist in feeding the oil thereto.

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

DANIEL D. FRISBEE.

Witnesses:

M. B. O'DOHERTY,
H. C. SMITH.