

(No Model.)

J. SZALAY.
AXLE SKEIN AND BOX.

No. 567,665.

Patented Sept. 15, 1896.

Fig. 1

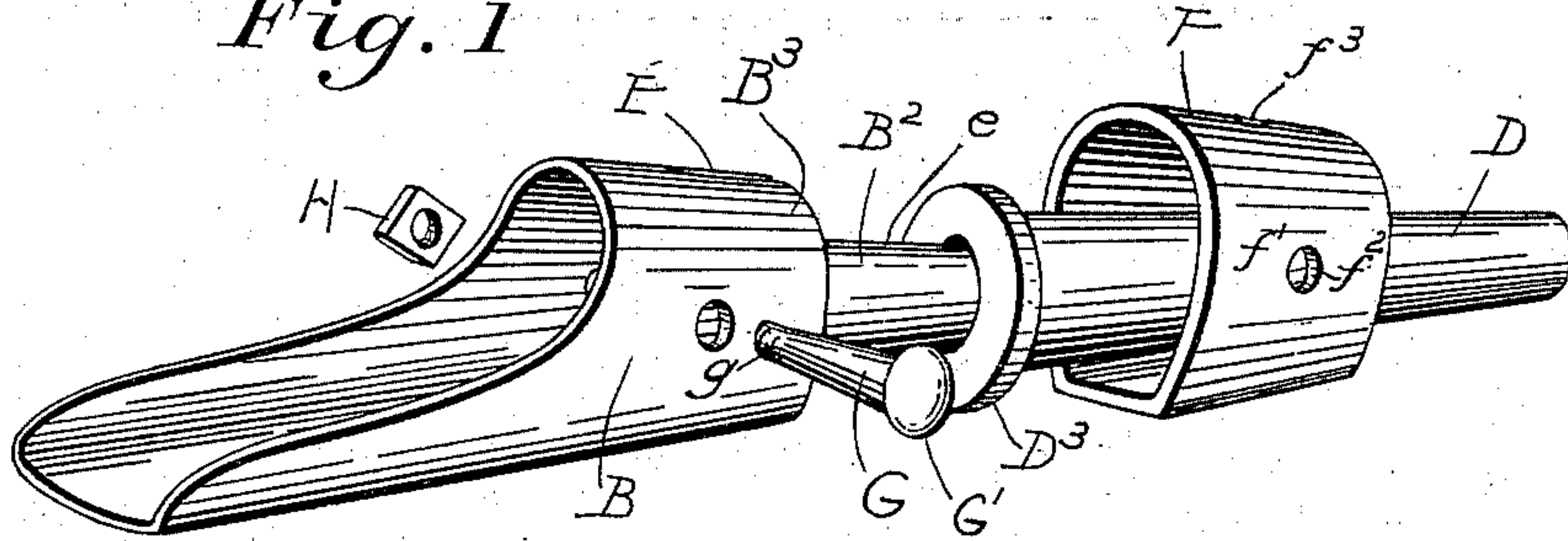


Fig. 2

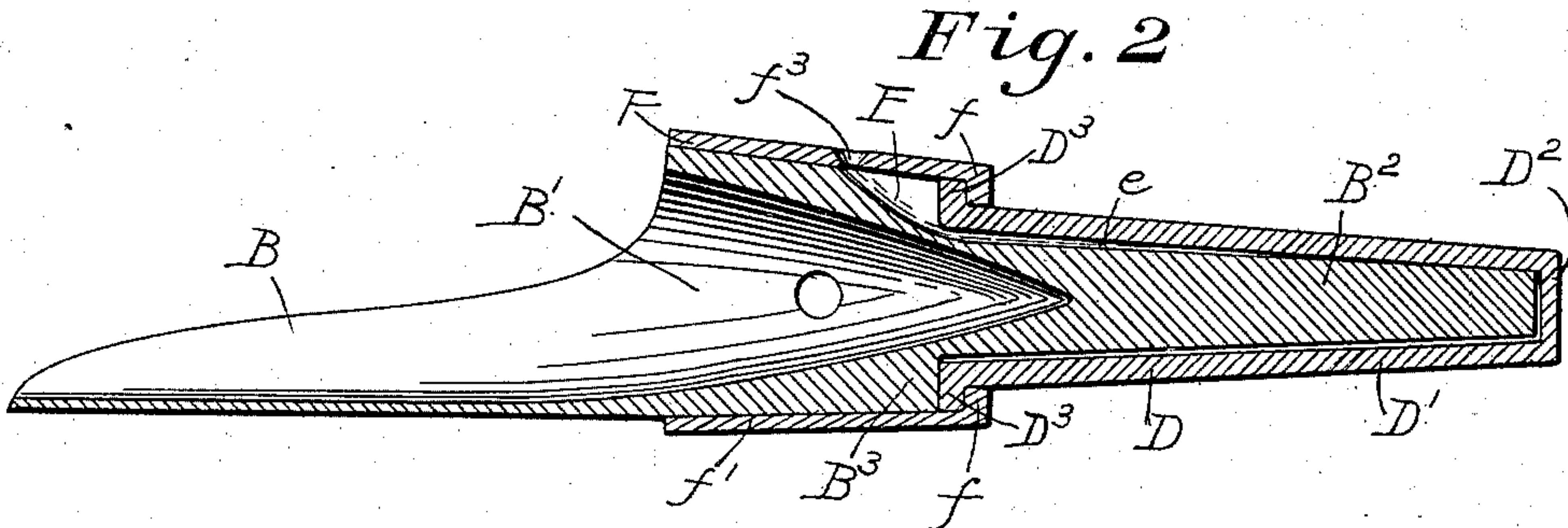
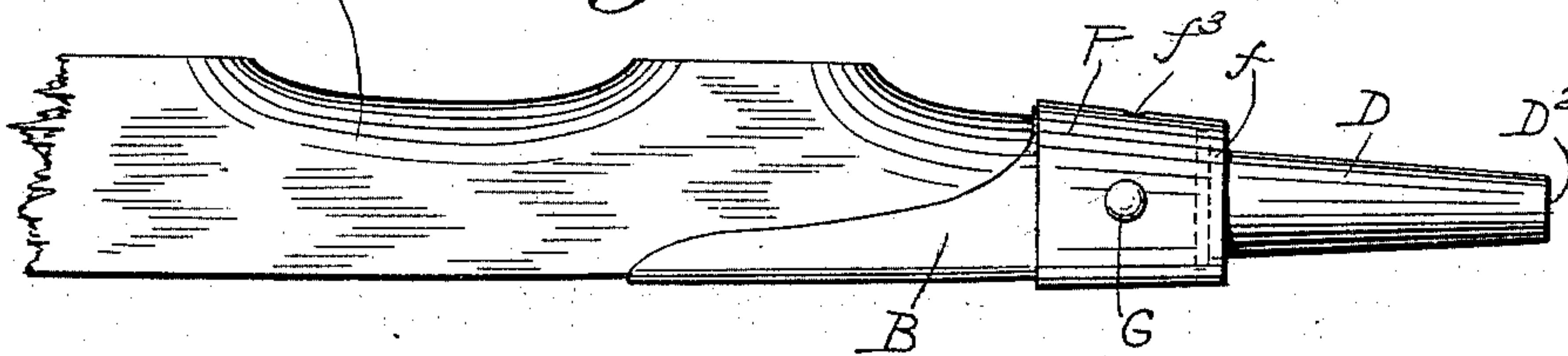


Fig. 3



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

JOHN SZALAY, OF SOUTH BEND, INDIANA.

AXLE SKEIN AND BOX.

SPECIFICATION forming part of Letters Patent No. 567,665, dated September 15, 1896.

Application filed January 4, 1896. Serial No. 574,331. (No model.)

To all whom it may concern:

Be it known that I, JOHN SZALAY, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Axle Skein and Box Connections, of which the following is a specification.

My invention relates to axle-skeins comprising a journal-bearing and a socket, the latter to receive the end of a wooden axle, and an axle-box comprising a sleeve closed at its outer end to fit over the axle-skein and be retained thereon by suitable means on the inner end of said axle-box, thus to provide a closed bearing to exclude the grit and dust, and also to hold the lubricant and to provide a closed storage compartment or reservoir therefor.

The object of my invention is to provide a simple, inexpensive, and practical device of this character which will also securely hold the wheel upon the axle by simple means.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of the various parts comprising my improved axle skein and box, partly or slightly separated from each other; Fig. 2, a vertical longitudinal section of the axle-skein, axle-box, and coupling-collar when placed in position one upon the other; and Fig. 3, a side elevation of the end of a wooden axle and the parts comprising my invention applied thereto.

The axle A is fitted in the socket B' of an axle-skein B and is secured thereto by a bolt C, as will hereinafter appear. The axle-skein B has a journal-section B² at its outer end, of well-known form, and an enlarged shoulder-section B³ at its middle part to provide a suitable abutment for the inner end of the axle-box D and also to provide an oil or lubricating cup E or recess of sufficient depth to form a supply-reservoir having a channel e, which extends therefrom to the journal and axle-box. The axle-box D has a sleeve portion D', closed to form a cap D² at its outer end, and has an outwardly-extending flange D³ at its inner end, the face of which is truly turned to bear snugly against the abutment-shoulder B³ of the skein, and when thus held in place will completely envelop the running-surfaces

of the hub and protect them from grit or dust, which would otherwise find an entrance thereto.

To provide an additional protection to the said bearing-surfaces from dust, and also to securely hold the box upon the skein and the skein upon the wooden portion of the axle, I have provided a coupling-collar F, having an inwardly-projecting flange f at its outer end, which fits over the flange D³ of the axle-box, and a body portion f', which tapers or expands inwardly and fits snugly over the outer surface of the shoulder-section B³ and is tightly drawn and securely held thereon by a bolt G, preferably having a slight taper from its head G' to its threaded end g, which latter receives a nut H after the said bolt is passed through the coupling-collar F and middle abutment-shoulder portion B³ of the skein, and upon screwing the nut upon the bolt the several parts hereinbefore described are all securely held in place. The coupling-collar F has bolt-holes f² to receive the bolt G and an oil-hole f³ at the top, directly over the lubricating-cup E, by which the latter may be filled, the said tapering coupling-collar being fitted so tightly upon the tapering shoulder portion of the skein, as hereinbefore described, as to insure an oil and dust tight joint between the coupling-collar and the axle-skein.

The parts constructed and connected as above described provide a simple, inexpensive, strong, durable, dust-proof, and self-lubricating union between the wheel and axle, and especially applicable to heavy farm and freight wagons.

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

1. A combined axle skein and box, consisting of a skein comprising a journal and socket portion having a tapering middle shoulder and abutment, a sleeve-box closed at its outer end and having an outward flange and bearing at its inner end, a coupling-collar made tapering to fit said middle shoulder and having an inward flange at its outer end to hold the flange of the box, and a bolt or key for securing the coupling-collar to the axle-skein, substantially as described.

2. The combination of an axle-skein having a spindle, an outwardly-tapering socket re-

cessed to provide an oil-reservoir, a collar-coupling to fit the tapering socket provided with an inner end flange and secured to the socket, and an axle-box adapted to fit the
5 wheel-hub having a closed outer end and having an outwardly-projecting flange on its inner end to engage with and be held by the inwardly-projecting flange of the coupling-collar, substantially as described.
10 3. The combination with a wooden axle-body, of the axle-skein having a socket to receive the end of the axle, oppositely-disposed bolt-holes therein, an axle-box closed at its outer end and having a flanged inner end, a

coupling-collar fitted upon the axle-skein 15 socket having bolt-holes to register with the bolt-holes of the skein-socket, and a bolt passing through the said axle-skein and coupling-collar and secured thereto, substantially as described. 20

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two subscribing witnesses.

JOHN SZALAY.

Witnesses:

BRUNO KRUEPER,
T. SENRICH.