

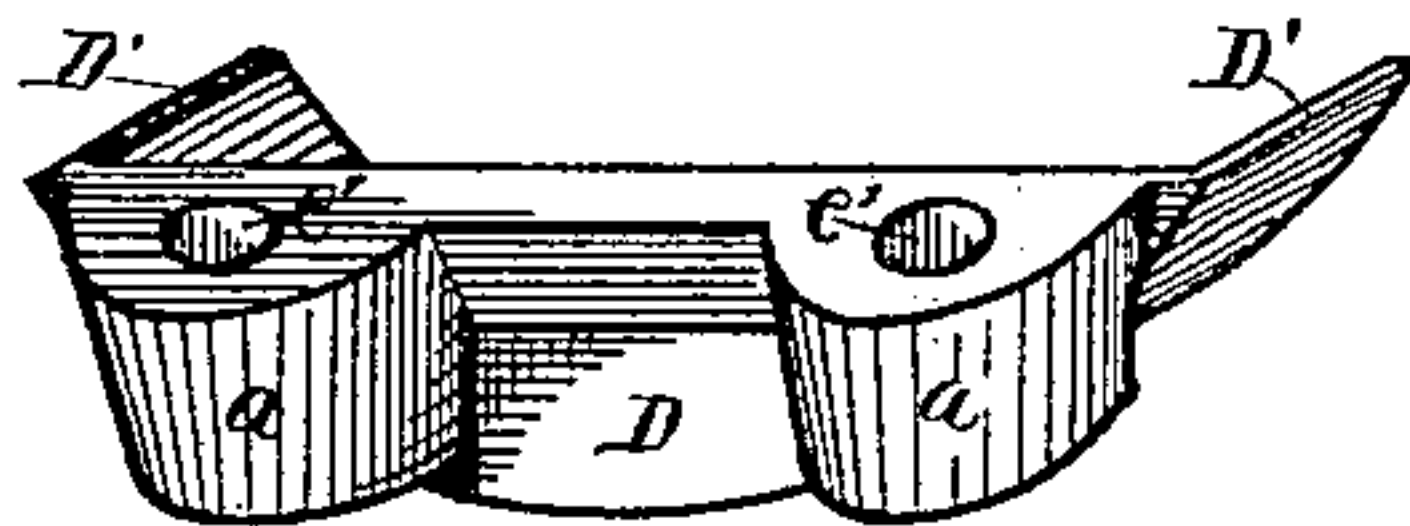
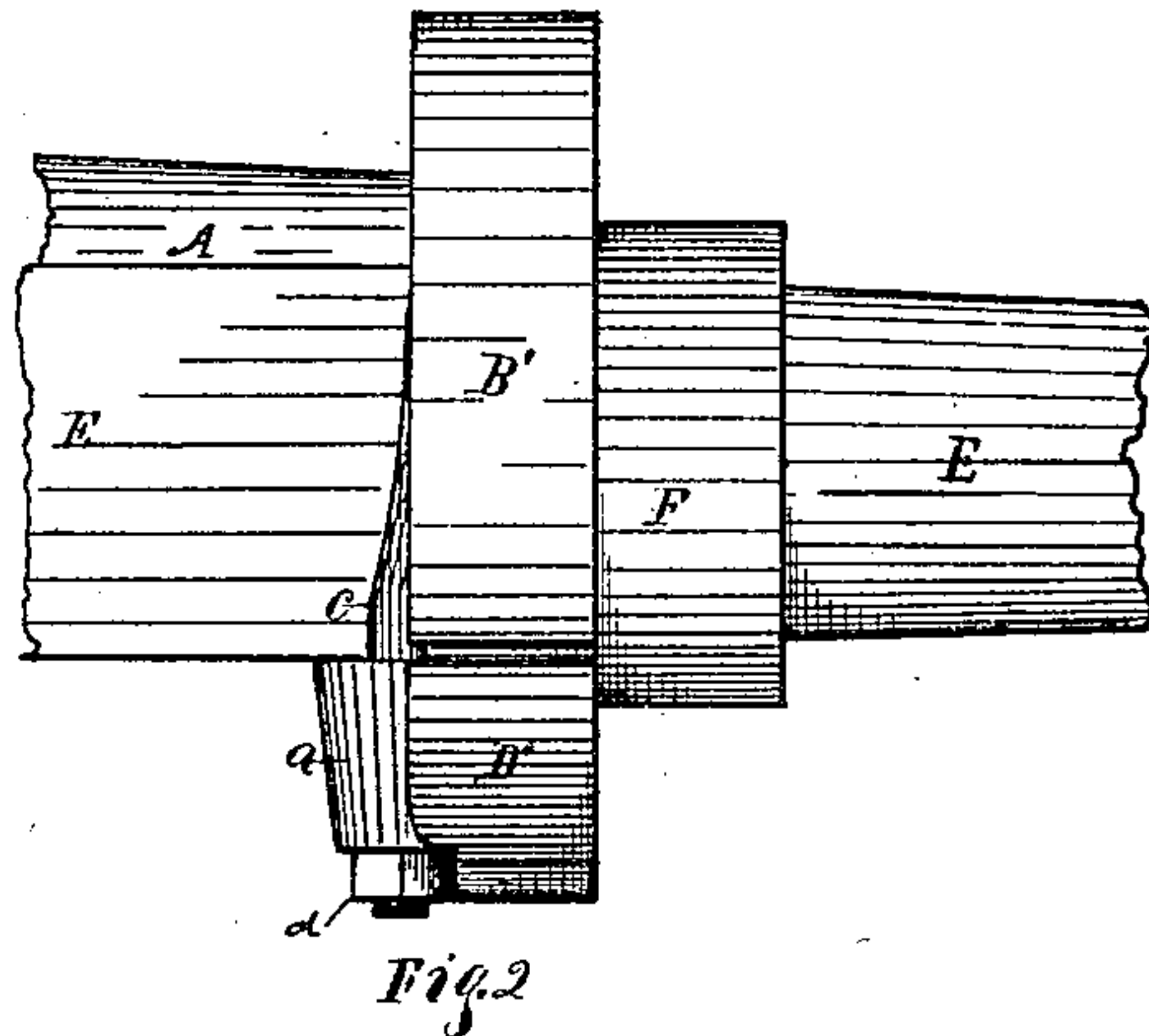
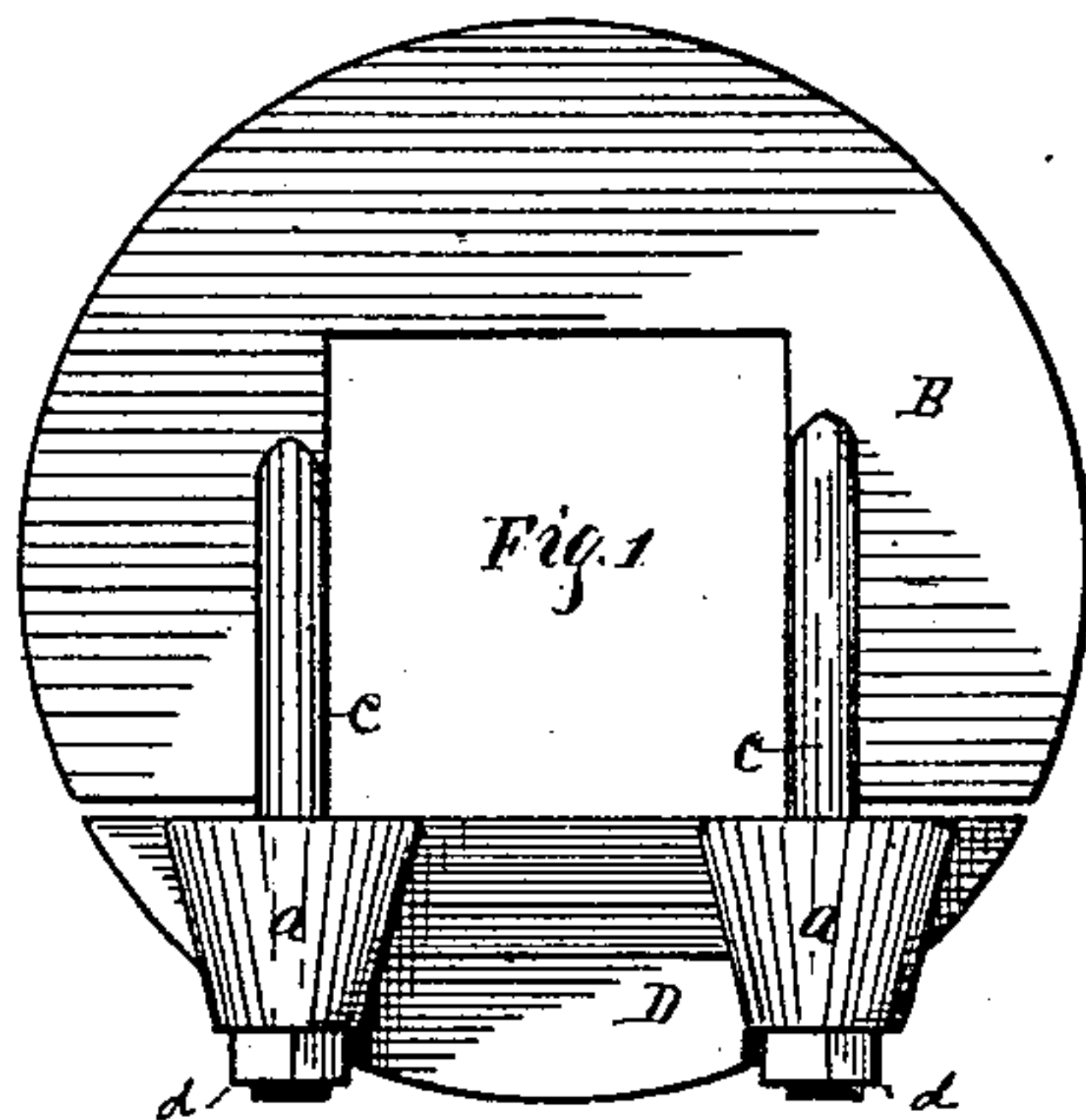
(No Model.)

W. M. FARR.

SAND PROTECTOR FOR VEHICLES.

No. 270,650.

Patented Jan. 16, 1883.



Attest.

John C. Perkins
Sarah W. Farr

Fig. 3

Inventor.

Willis M. Farr
By Roscoe B. Whaler
Atty.

UNITED STATES PATENT OFFICE.

WILLIS M. FARR, OF DOWAGIAC, MICHIGAN.

SAND-PROTECTOR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 270,650, dated January 16, 1883.

Application filed October 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIS M. FARR, of Dowagiac, county of Cass, and State of Michigan, have invented a certain Improvement in Sand-Protectors for Vehicles, of which the following is a specification.

The nature of my invention relates to that class of devices known as "sand bands or protectors" for hubs and axles of vehicles; and it consists in providing the usual shell, B, of a protector with a supplemental cup or bottom, D, as hereinafter described.

In order to aid others familiar with the art to which my invention belongs to make and use it, I will proceed to describe its construction and operation with reference to the several drawings, forming a part of this specification, in which letters for reference are indicated.

Figure 1 is a rear elevation of the shell B, having the supplemental bottom D attached thereto. Fig. 2 is a side elevation of the same attached to the axle E. Fig. 3 is a rear and partial top plan view of the supplemental bottom D detached from the shell.

The shell having the projecting rim B' and square opening in its vertical part, with vertical pintles *e e* cast thereon and secured by a common clip-tie, illustrates the usual style of shell now in use. The shell so constructed is entirely open, exposing that portion of the wheel-hub below the clip-tie and axle.

My present invention consists in attaching to the pintles *e e* the supplemental part D. (See Fig. 3.) The part is strengthened in its rear and upper portion, being provided with enlargements or ears *a a*. Through each ear is a hole, *e'*. (See Fig. 3.) Through these holes the pintles *e e* pass when the parts are attached around the axle, as shown in Fig. 2. The supplemental part is also used in place of the common clip-tie, and has cast onto its vertical part at right angles a concavo-convex part, D'. (See Figs. 2 and 3.) The diameter of the part D' is equal in proportion to that of

the part B' on the upper portion of the shell. The projections of both are equally alike, and when the parts are joined together they form a cylinder or cup, (see Figs. 1 and 2,) which is made to encircle and protect the inner end or wearing parts of the wheel and axle. The part D is bound against the under surface of the axle E, (see Fig. 2,) and the upper part or shell B is bound to the upper surface of the axle when the nuts *d d* are tightened, as in Fig. 2. The distance through the vertical part of the square opening of the part B (see Fig. 1) is less than that through the vertical square of the axle, the object of which is to be able to bind the parts B and D rigidly to the axle, which causes a slight opening between the parts B and D, as shown in Figs. 1 and 2. The object of the part D of the protector is to prevent sand, dust, and the like from gathering upon the under or lower portions of the hub and axle, as heretofore described. The part D also acts as a clip-tie joining the parts together.

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

1. The herein-described sand-protector for vehicles, consisting of the parts B and D, the part B having a bearing against the upper surface of the axle E, with the part D having a like bearing against the under portion of the axle, the parts being bound together by the pintles and nuts, substantially as shown and described.

2. The herein-described sand-protector, consisting of two cup-shaped parts, the part B having an opening in its vertical part, fitting over the square of the axle E, said opening having a less vertical distance through it than through the vertical square of the axle, when arranged and combined substantially as and for the purposes specified.

WILLIS M. FARR.

Witnesses:

ROSCOE B. WHEELER,
SARAH M. FARR.