

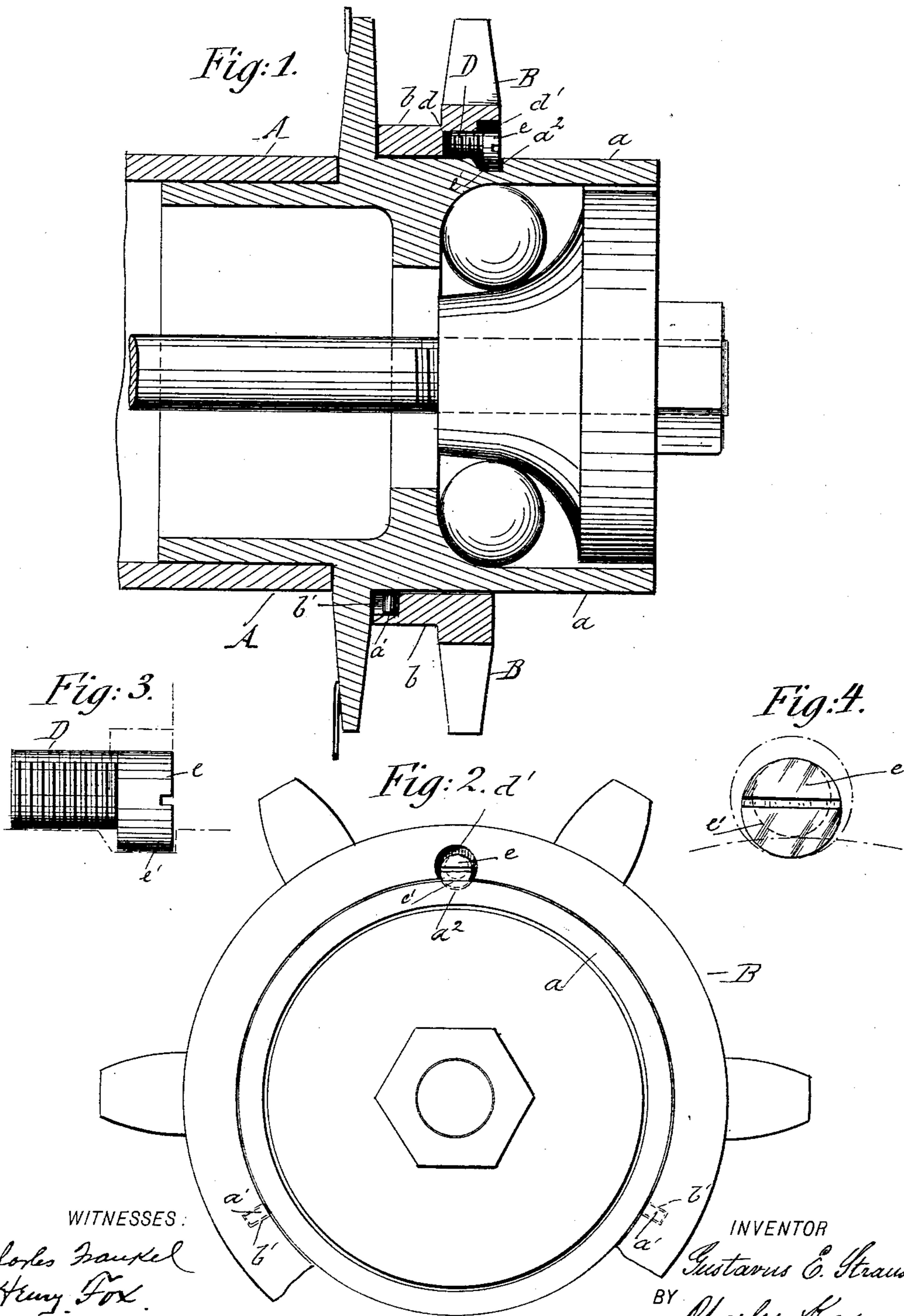
(No Model.)

G. E. STRAUSS.

METHOD OF FASTENING WHEELS TO HUBS, AXLES, OR SHAFTS.

No. 591,798.

Patented Oct. 12, 1897.



WITNESSES:

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METHOD OF FASTENING WHEELS TO HUBS, AXLES, OR SHAFTS.

SPECIFICATION forming part of Letters Patent No. 591,798, dated October 12, 1897.

Application filed February 10, 1897. Serial No. 622,873. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVUS E. STRAUSS, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in the Method of Fastening Wheels to Hubs, Axles, or Shafts, of which the following is a specification.

My invention has reference to improvements in the method of attaching wheels to hubs, axles, and shafts; and it consists in the method described hereinafter and shown in the accompanying drawings. This method does away with the manner of screwing the flanges of the wheels on the hubs or shafts, and thereby simplifies greatly the locking and unlocking of the wheels.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a section of a portion of a wheel-hub to which a second wheel, which may be a sprocket-wheel, is attached. Fig. 2 is an end view of the wheel-hub and the wheel attached thereto; and Figs. 3 and 4 are a side and a top view, respectively, of the locking device.

Similar letters of reference indicate corresponding parts.

A in the drawings is a hub as used in bicycles, the outer extension a of which is provided with one or more outwardly-extending pins a' and a rounded-off excavation a^2 on its outer periphery.

B is a sprocket-wheel or any other wheel having a lateral flange b , that incloses the extension a of the hub A and is provided with slits b' . A screw-hole d extends into the wheel B near its inner periphery and has on its outer end a recess d' for the screw-head, reaching beyond the inner periphery of the wheel. When the wheel is placed in proper position on the hub, the slits b' of the flange b inclose the pins a' of the hub, and the recess d of the wheel is located above the excavation a^2 of the hub, as shown in Fig. 2.

D is a screw-bolt fitting into the screw-hole d of the wheel B and having an eccentric head e located in the recess d' when the screw-bolt is screwed into the screw-hole of the wheel. The screw-head is so constructed that it will project either into the upper portion of the recess d or beyond the inner periphery of

the wheel, as may be easily understood by the drawings.

The wheel is locked to the hub in the following manner: The screw-bolt D is screwed into the screw-hole d of the wheel and the eccentric portion e' of the screw-head so placed that it projects into the upper portion of the recess d' . The wheel is then pushed upon the extension a of the hub B, so that the pins a' of the latter are placed in the slits b' of the flange b . In the position of the screw-head e before described the outer periphery of the hub does not interfere with the screw-nut; but as soon as the wheel is in the proper position on the hub the screw-bolt is so turned that the eccentric portion of its head projects into the excavation a^2 of the hub and abuts against the walls of the excavation when the wheel is tried to be pushed backward or forward. The eccentric head of the screw-bolt prevents thus a backward-and-forward motion, and the pins a' , located in the slits b' , do not allow a rotary movement of the wheel, so that by means of this simple locking device the wheel is reliably held in position.

It is evident that the described method can be also applied in fastening fly-wheels or other wheels to axles and shafts.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A hub, axle, or shaft having on its outer periphery an excavation, in combination with a wheel having near its inner periphery a screw-hole, and a screw-bolt fitting into the screw-hole and being provided with an eccentric head, the eccentric portion of which being able to project into the said excavation of the hub, axle, or shaft, substantially as set forth.

2. A hub, axle, or shaft having on its outer periphery an excavation, in combination with a wheel having near its inner periphery a screw-hole with a recess at its outer end, a screw-bolt fitting into the screw-hole and being provided with an eccentric head which is located in the said screw-hole recess, the eccentric portion of the screw-head being able to project into the said excavation of the hub, axle, or shaft, substantially as set forth.

3. A hub, axle, or shaft having on its outer periphery pins and an eccentric, in combina-

tion with a wheel provided near its inner pe-
riphery with a screw-hole and having a flange
provided with slits to be engaged by the said
pins, and a screw-bolt fitting into the screw-
5 hole and having an eccentric head, the ec-
centric portion of which being able to project
into the said excavation of the hub, axle, or
shaft, substantially as set forth.

Signed at New York, in the county and
State of New York, this 1st day of February, 1897.
A. D. 1897.

GUSTAVUS E. STRAUSS.

Witnesses:

CHAS. KARP,
HENRY FOX.