

(No Model.)

F. G. BIPPUS.

FIFTH WHEEL.

No. 339,365.

Patented Apr. 6, 1886.

Fig. 1.

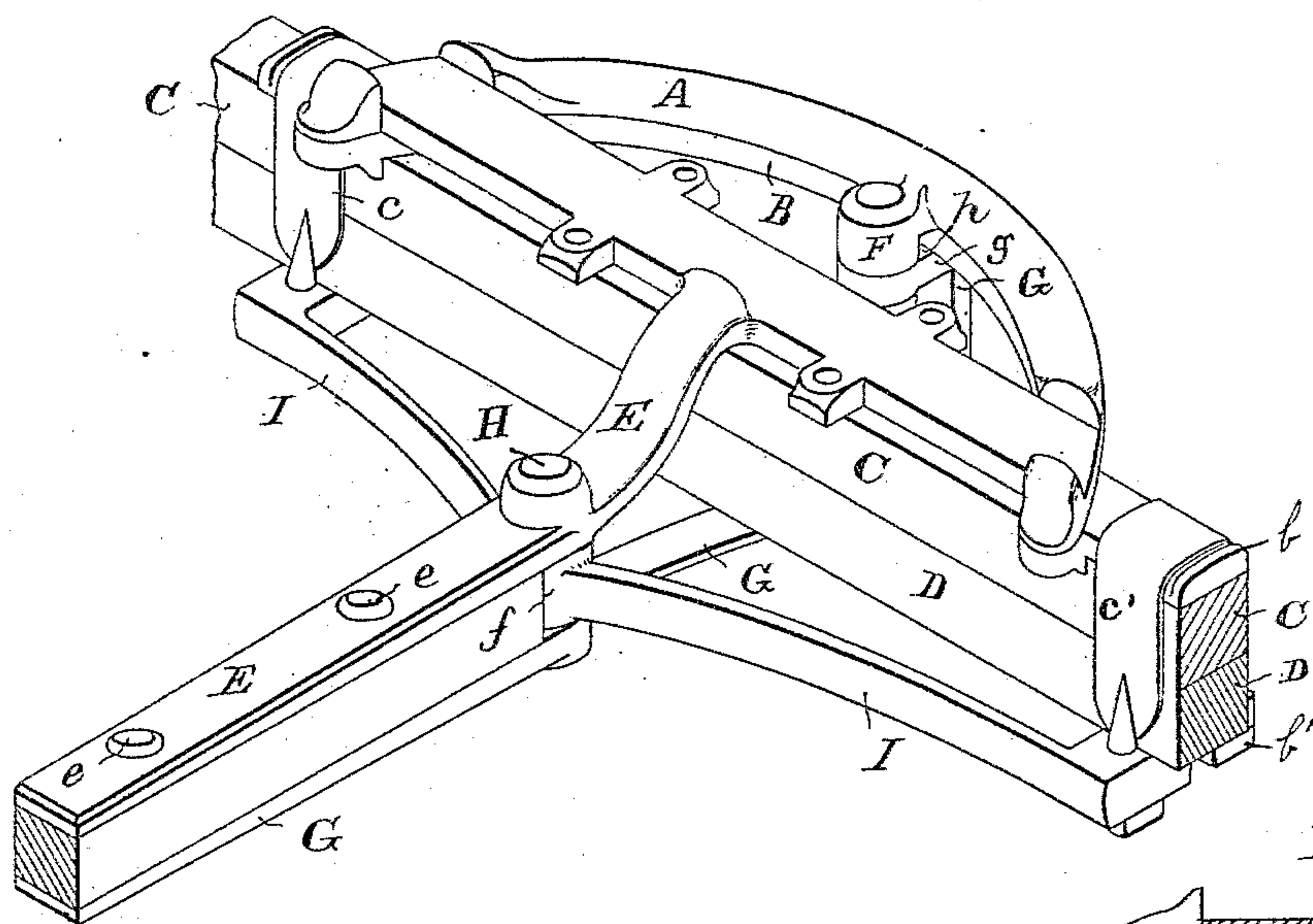


Fig. 4.

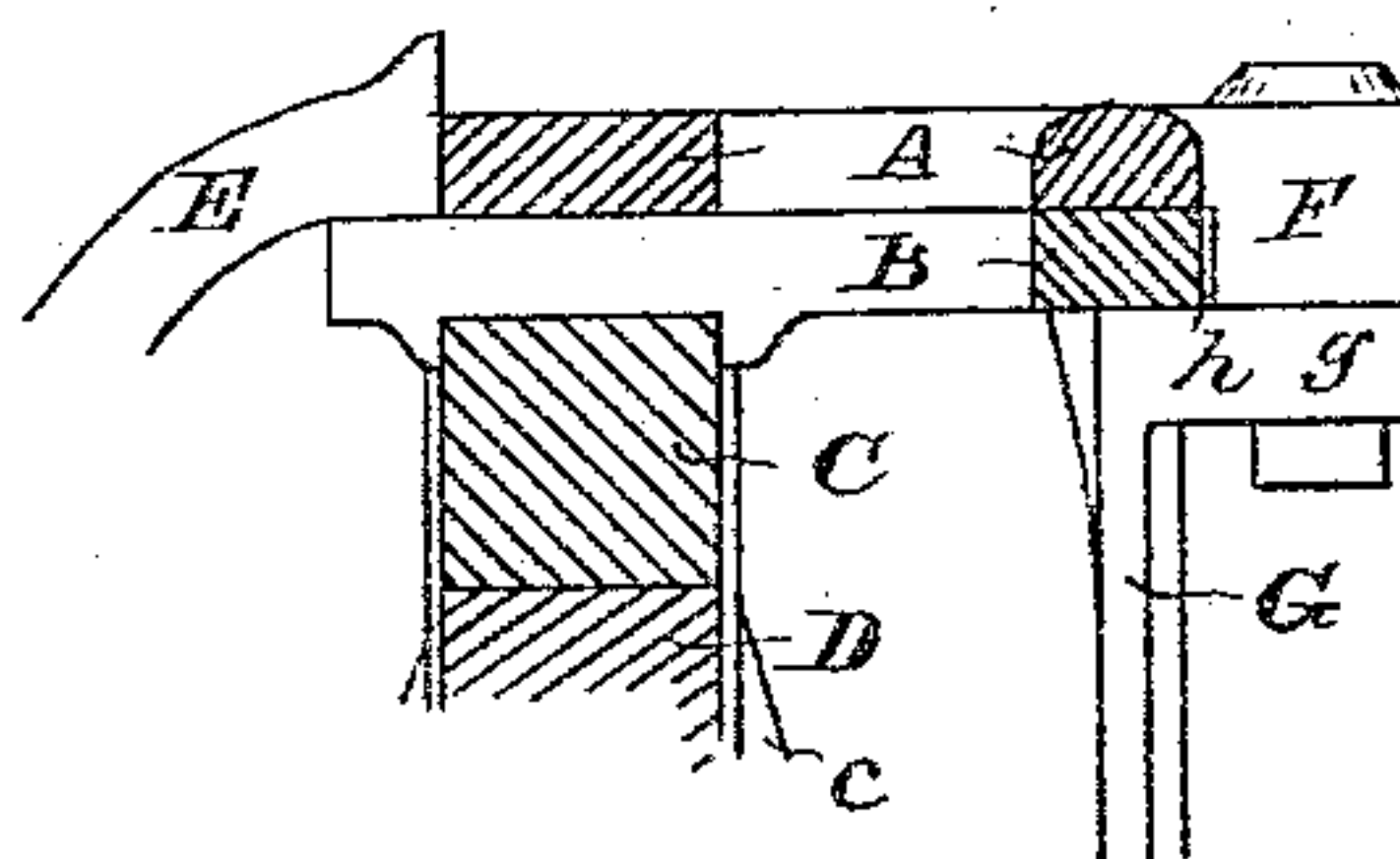


Fig. 2.

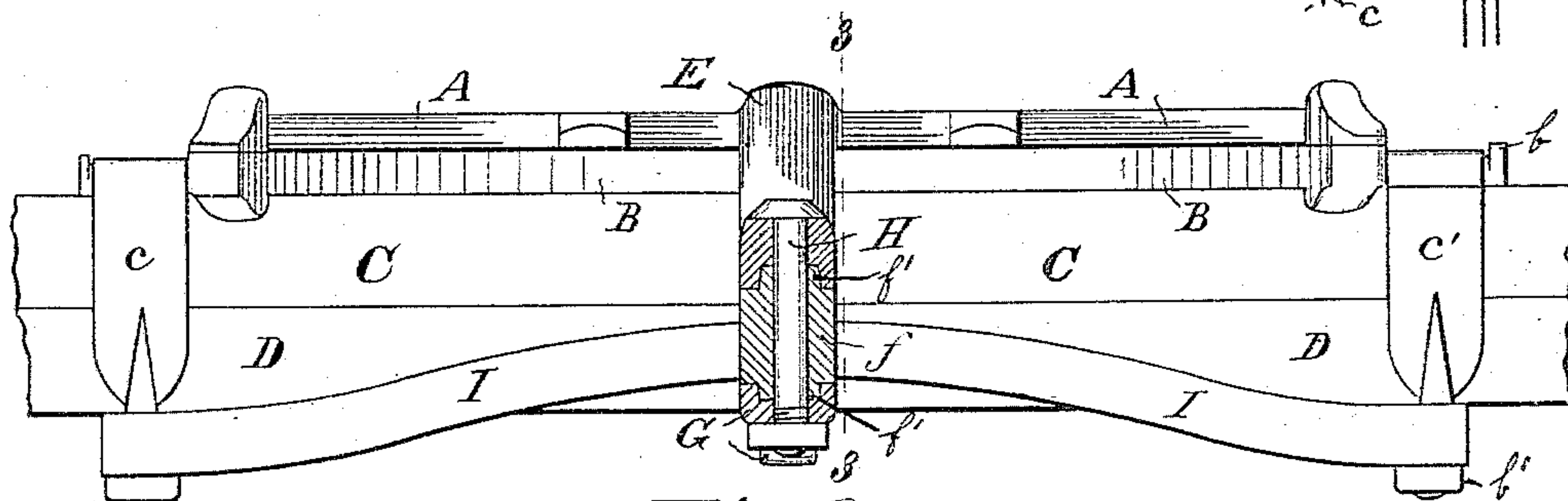
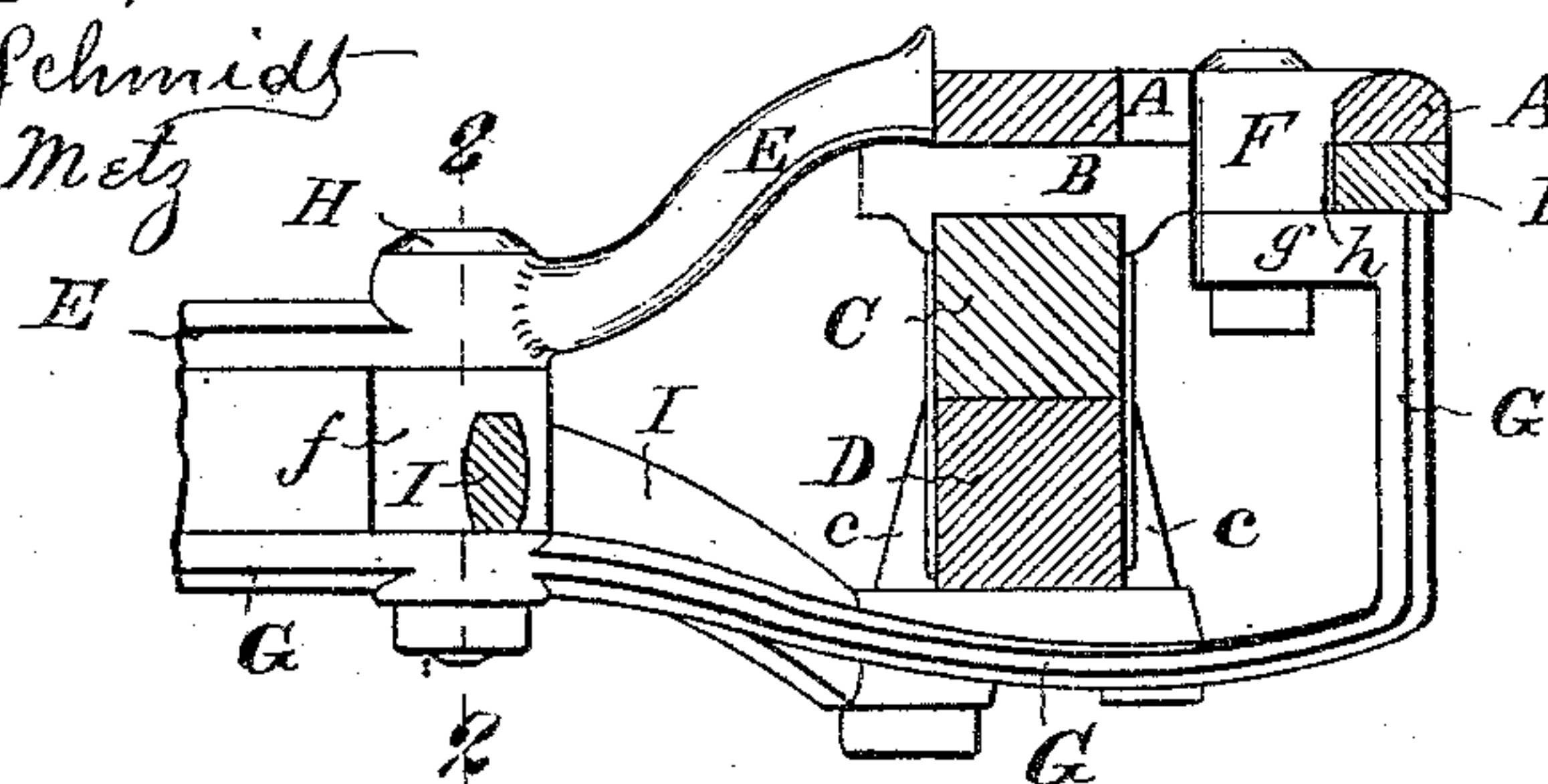


Fig. 3.



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FERDINAND G. BIPPUS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO JAMES
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FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 339,365, dated April 6, 1886.

Application filed December 21, 1885. Serial No. 186,397. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND G. BIPPUS, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Fifth-Wheels, of which the following is a specification.

My invention relates to a device for overcoming the objectional weak points in the connection of the running-gears of vehicles; and it consists in novel features in the coupling of the upper and lower sections of the fifth-wheel which, while allowing free action to the same, still firmly holds it at times of adverse strain, and especially in the pivoted connection at the king-bolt, which, instead of passing through the axle and bed-piece, is placed at the junction of the brace-rods or frame that runs back from the clips to its point of junction with the perch-plates, to which it is bolted. It will be seen that by this device both axle and bed-piece are left intact without being weakened by the usual hole for the king-bolt, which is the point of greatest strain in the running-gears, and is strongly braced by the frame, which angles forward to the clips that secure the axle to its bed-piece. It will also be seen that by the extension of the perch-irons, which connect above to the upper fifth-wheel and beneath to the coupling that connects the sections of said wheel, even should the king-bolt be lost or break, the running-gears would still be held from uncoupling.

To more fully describe the construction and operation of my improvements, and to enable others to fully understand the same, reference is had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved fifth-wheel, taken from the rear. Fig. 2 is a rear elevation of the same, with a vertical section taken on line 2 2 of Fig. 3. Fig. 3 is a section across the axle and fifth-wheel on line 3 3 of Fig. 2. Fig. 4 is a detail section. Similar letters refer to similar parts throughout the several views.

A represents the upper member of the fifth-wheel; B, the lower member.

I preferably make the fifth-wheel to form a segment of a circle, which extends beyond the

front of the axle. The lower member, B, of the fifth-wheel rests on the bed-piece C, and is held there by means of clips *c* and *c'*, which are bent over the saddle-lug *b*, cast on its outer periphery near its ends. (See Figs. 1 and 2.) These clips also unite the bed-piece C to the axle D. The upper member of the fifth-wheel rests flat on the lower, and is connected at the back by means of a perch iron or plate, E, which forms part of it, to the perch pole by means of bolts *e*. The front part of the upper member is provided with a lug, F, preferably cast on its inner periphery, to utilize space. It may also be cast on its outer periphery, to gain more strength, if desired. To this lug is bolted a lower perch plate or iron, G, which extends down from same and passes under the axle to the lower side of the perch-pole, to which it is bolted by means of the bolts *e*, which hold the upper perch plate or iron. The lug F extends down below the upper member of the fifth-wheel far enough to clear the lower member, and, with the elbow *g* of the lower perch-plate, forms an open slot, *h*, to allow the lower member to turn and slide freely through it. The elbow *g* serves as a support for the lower member, B, to prevent it from tipping. By thus connecting the upper member of the fifth-wheel at the rear and front to the perch-pole the same is held firm and rigid at times of adverse strain.

H is the king-bolt, which, instead of passing through the axle and bed-piece, passes through the upper and lower perch plates or irons, E and G, rear of the axle, at the center point of the segmental fifth-wheel, and is placed at the junction of a pair of brace-rods, I I, which extend back from the clips *c* and *c'* (which secure the axle and lower member of the fifth-wheel to the bed-piece) to their point of junction with the perch-plates, between which they are bolted by the king-bolt. The brace-rods I I are cast in one piece to form a frame, which acts as a medium to turn the axle on the king-bolt as its center. The king-bolt, which receives the greatest strains in the running-gears, is thus strongly held in its bearings by the upper and lower perch-irons. At the point of junction of the brace-frame I I is formed hub *f*, provided with an annular rim or collar,

5 *f'*, top and bottom, which enter the respective
 upper and lower perch-irons, thereby keeping
 the axle, bed-piece, lower member, B, of the
 fifth-wheel, and the brace-rods I in place and
 prevent them from separating from the upper
 member, A, of the fifth-wheel in case the king-
 bolt H should break or be lost. The brace-
 rods I I are secured to the axle by means of
 the same clips *c* and *c'* which unite the lower
 10 member, B, of the fifth-wheel to the bed-piece
 C and axle D, as before described, by passing
 their ends through holes in the ends of the
 brace-rods I I, and drawing all the parts to-
 gether by nuts *b'* at the ends of the clips below,
 15 thus adapting the fifth-wheel to fit any thick-
 ness of axle and bed-piece by merely using
 longer or shorter clips, thereby saving time,
 labor, and expense in the fifth-wheel itself, as
 well as in attaching it to various kinds of ve-
 20 hicles.

In Fig. 4, the lug F is shown on the outer
 periphery of the fifth-wheel, and is intended
 to give more strength to the same than when
 placed on the inner periphery. The slot *h* for
 25 the reception of the lower member, B, is formed
 by the elbow *g* similar to when the lug is on
 the inner periphery, as shown in Fig. 3.

Having now fully described the construction
 and operation of my improved fifth-wheel, what
 I claim as new, and desire to secure by Letters 30
 Patent, is—

In a fifth-wheel, the combination of the up-
 per member, A, the upper and lower perch
 plates or irons, E and G, and lug F, the upper
 perch iron or plate forming part of said upper 35
 member, and extending from the rear of same
 to the perch-pole, the lower perch-iron being
 bolted to the front of said member at its lug
 F, and extending down and curving back un-
 der the axle to the perch-pole, the king-bolt 40
 H, with the lower member, B, of the fifth-
 wheel secured to the bed-piece by clips *c* and
c', and the brace-rods I I, substantially as here-
 in shown and described, and for the purpose
 set forth. 45

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

FERDINAND G. BIPPUS.

Witnesses:

CHAS. F. MEISNER,
 JAMES MCCLURE.