

(No Model.)

2 Sheets—Sheet 1.

S. C. COLLIN.
INGOT BUGGY.

No. 281,022.

Patented July 10, 1883.

Fig. 1.

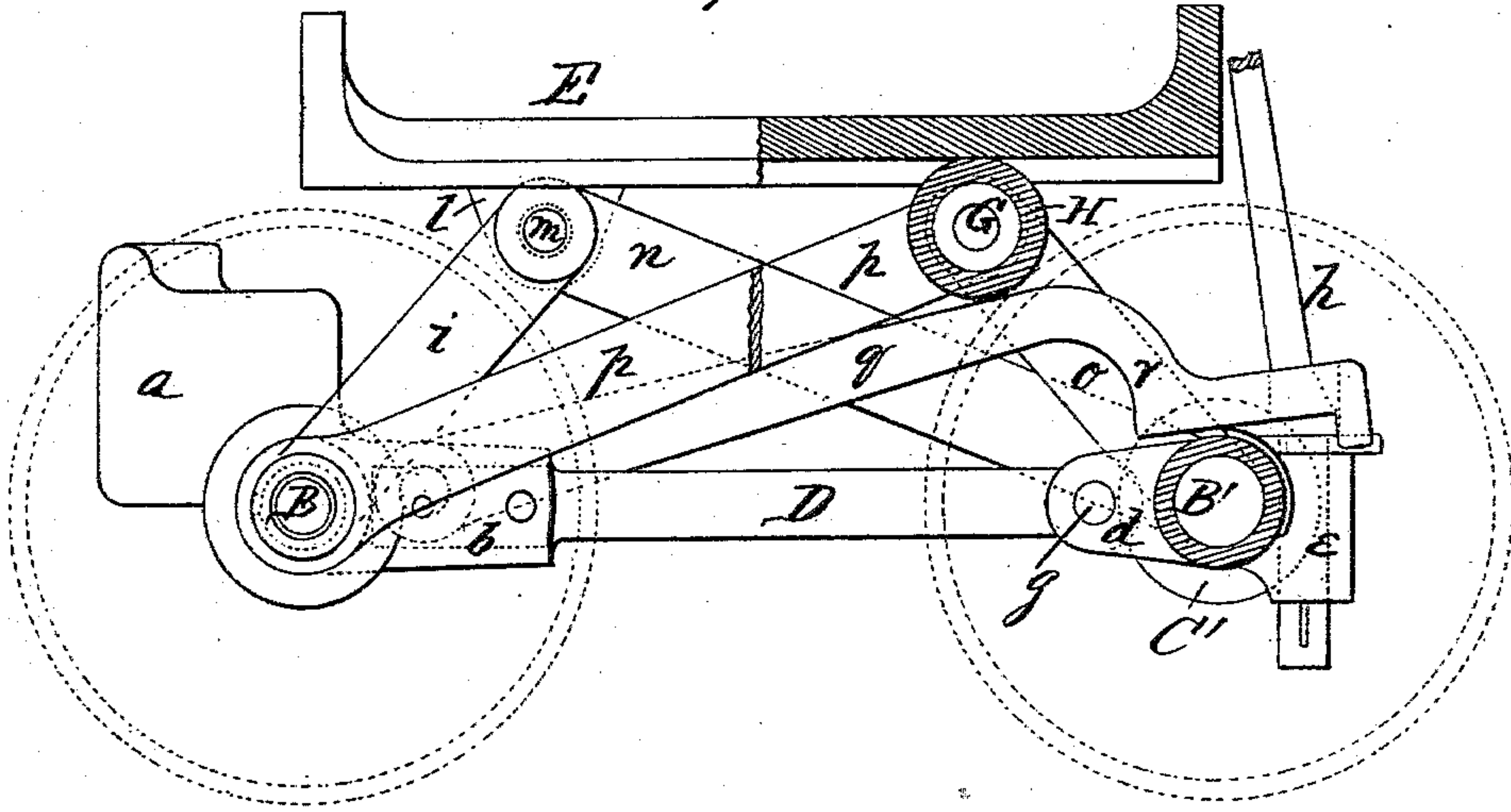
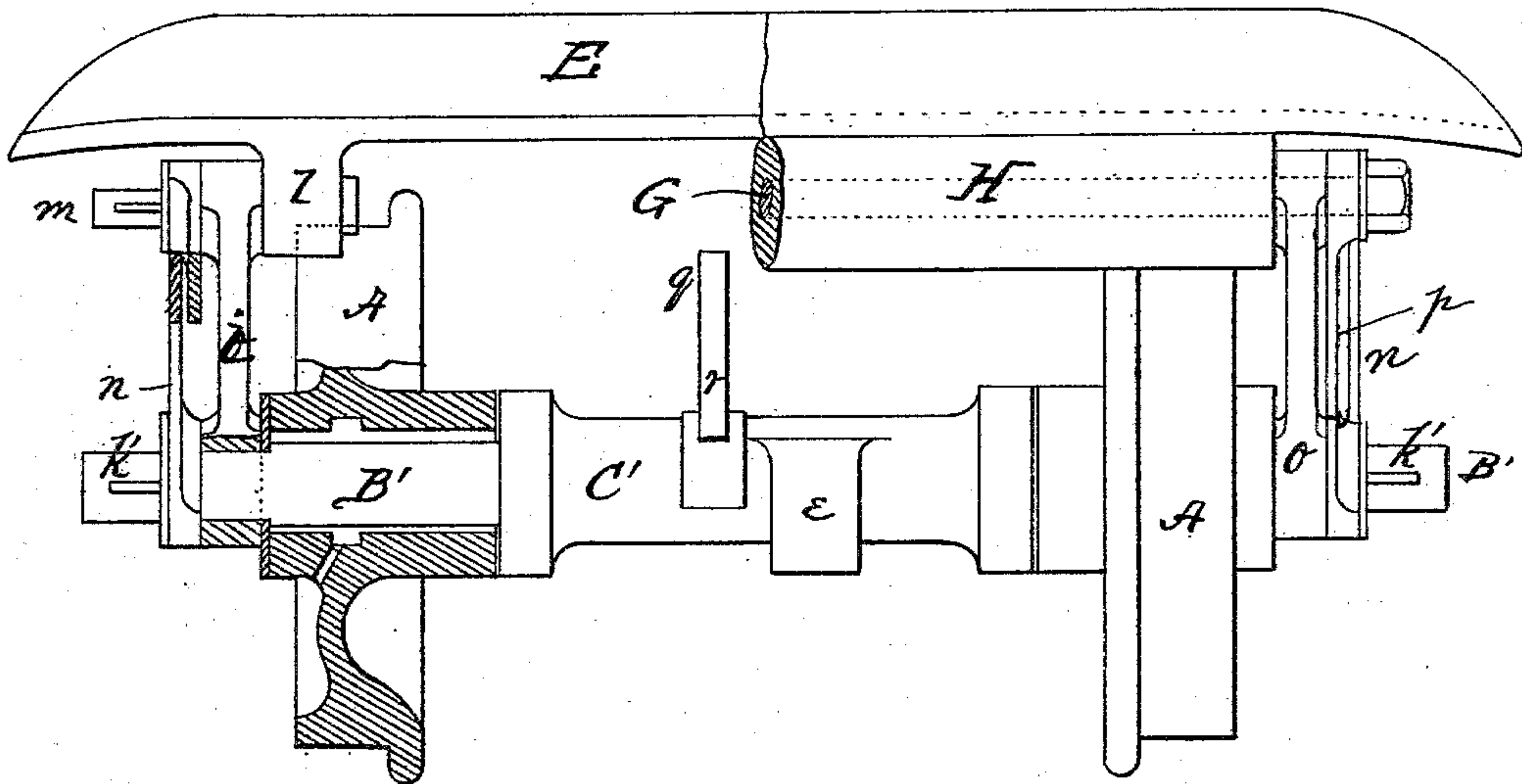


Fig. 2.



Witnesses:
G. Smith.
John M. Patterson.

Simon C. Collin
by Connolly and McFigue
Attorneys.

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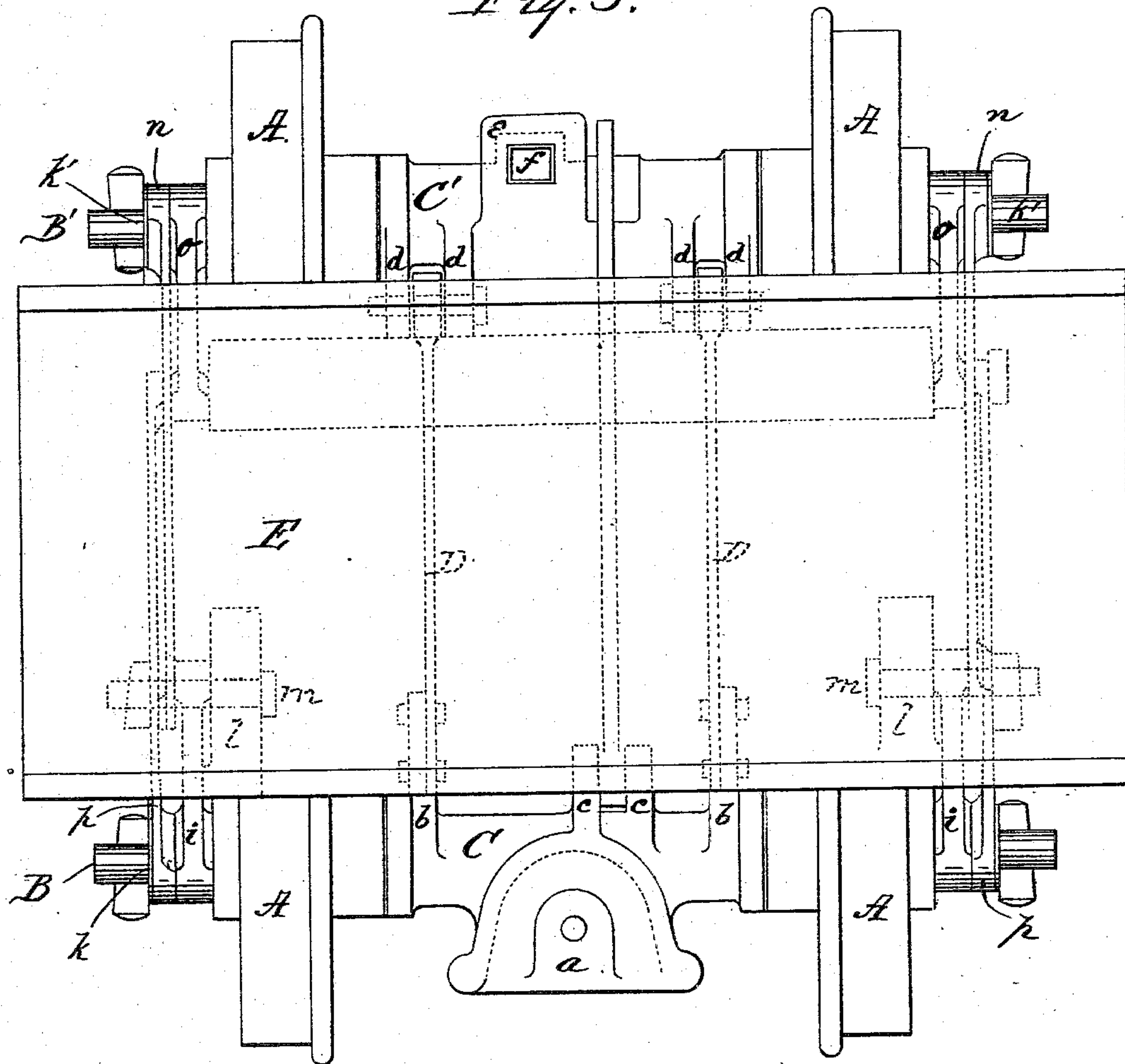
2 Sheets—Sheet 2.

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Fig. 3.



Witnesses:
G. Smith.
John M. Patterson.

Simon C. Collin,
by Connolly, Smith & McHugh
Attorneys.

UNITED STATES PATENT OFFICE.

SIMON C. COLLIN, OF BRADDOCK, PENNSYLVANIA.

INGOT-BUGGY.

SPECIFICATION forming part of Letters Patent No. 281,022, dated July 10, 1883.

Application filed December 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, SIMON C. COLLIN, of Braddock, in the county of Allegheny and State of Pennsylvania, have invented certain
5 new and useful Improvements in Buggies for Transferring Ingots, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a plan view of the buggy embodying my improvements. Fig. 2 is a side elevation, partly sectional; and Fig. 3 is an end elevation, partly sectional.

The object of this invention is to facilitate the handling of ingots in mills, where it is desired to deliver the ingots from a buggy or car to the grapples or hooks of the "telegraph-carriage" usually adopted for the transfer of ingots from one part of the mill to another.

The invention consists in the construction, arrangement, and combination of parts, as hereinafter fully described and claimed.

The invention is capable of various applications; but as it is especially designed for the transfer of ingots from the reheating-furnace to the "blooming-mill," I will confine my description to a buggy constructed for that particular purpose. This operation of transfer by the usual means of suspended levers and hand-hooks is laborious, and requires no little skill in order to quickly and safely get the ingot on the "telegraph."

Referring to the drawings herewith, A A represent the four wheels of the buggy, arranged in pairs on the axles B B', and free to revolve thereon.

Upon axle B, I fit a cast-iron sleeve, C, having the bull-nose *a* for coupling to the engine, the nose *a* projecting outwardly. Sleeve C, at equal distances from its center, has the two
45 similar backward extensions *b b b*, and also the lugs *c* at or near the middle.

Upon the rear axle, B', a similar sleeve, C', is fitted, having, at points opposite the extensions *b* of sleeve C, the crank-lugs *d d*, as shown, projecting forwardly, and the socket-lug *e*, extending backwardly, having the vertical socket *f*.

To each of the extensions *b* of sleeve C is bolted the connecting-bar D, so as to be rigid thereon. At their other ends the bars D are
55 journaled on the cranks *d d* by means of the crank-pins *g*, as shown. By this construction, if a lever or handspike, *h*, is inserted in the socket *f*, and the sleeve C' rotated partially, so as to cause its cranks *d d* to move upwardly
60 and backwardly around the axle, the two axles B B' are drawn toward each other with great power, on account of the operation of the cranks and connecting-bars. I utilize this drawing together of the axles to effect the lift-
65 ing and lowering of the bed E in the following manner:

From each end of the axle B rise the toggle-links *i i*, respectively, swinging on the axle B at its reduced portions *k*. Links *i* extend up-
70 wardly and are pivoted to the lugs *l*, which project downwardly from the bed E. Pivoted to the same lugs, *l*, by means of the pins *m*, are the links *n*, which extend down and over to the axle B', upon which they are free to ro-
75 tate like links *i* at the portion *k'* of the axle. This arrangement supports the front of the bed E. Similarly, links *o* are swung on axle B', and links *p* on axle B. Both sets of levers *o* and *p*, however, instead of being pivoted to
80 the bed E, are journaled on the ends of a shaft, G, upon which is freely fitted the long hollow roller H, which bears against and rolls upon the under surface of the bed E, as shown.

As shown in the figures, bed E is at its low-
85 est position. Suppose, now, it has an ingot upon it, and the buggy has been hauled to a position under the usual telegraph. Lever *h* is drawn downwardly, with the result, before described, of drawing the axles B B' toward
90 each other. This causes the toggles to assume a more oblique position, with their points of intersection all elevated, the bed E rising accordingly. The locking-bar *q*, pivoted conveniently on sleeve C, drops down, with its hook *r*
95 embracing the sleeve C', thus locking the whole in a firm and stable condition, which can be released only by forcibly lifting the locking-hook *r* from its engagement with sleeve C'. In the elevated position the hooks or grapples of the
100 telegraph-carriage come under the ends of the ingot, (the sides of the bed E being beveled or curved downwardly to permit of their insertion under said ends,) after which the lever *h*

is elevated, and the bed E thus lowered away from the ingot, when the buggy may be drawn away. All these operations occupy a very short time, and are quite easily done, and thus both labor and time are economized.

I claim as my invention—

1. An ingot- buggy having its bed supported on two pairs of wheels solely through the interposition of toggle-levers, jointed as described, and means for drawing the axles of said wheels together, substantially as described.

2. An ingot- buggy having its bed supported on two pairs of wheels through the interposition of toggle- levers, jointed as described, in combination with means, substantially as specified, for drawing the axles of said wheels together and locking them in such position.

3. In an ingot-buggy, in combination with axles B B', the sleeve C, having rigidly-attached connecting-bars D D, sleeve C', having the cranks *d d*, pins *g*, and suitable means for rotating said sleeve C', substantially as described.

4. The combination, with the horizontally-movable axles B B', of the pivoted toggle-links *i n o p*, and bed E, links *i n*, jointed to the bed E directly, and links *o p*, supporting the bed E by means of the shaft G and roller H, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SIMON C. COLLIN.

Witnesses:

W. M. GORMLY,
A. A. CONNOLLY.