

No. 654,941.

Patented July 31, 1900.

M. A. BROWN.
CAR COUPLING.

(Application filed Mar. 8, 1900.)

(No Model.)

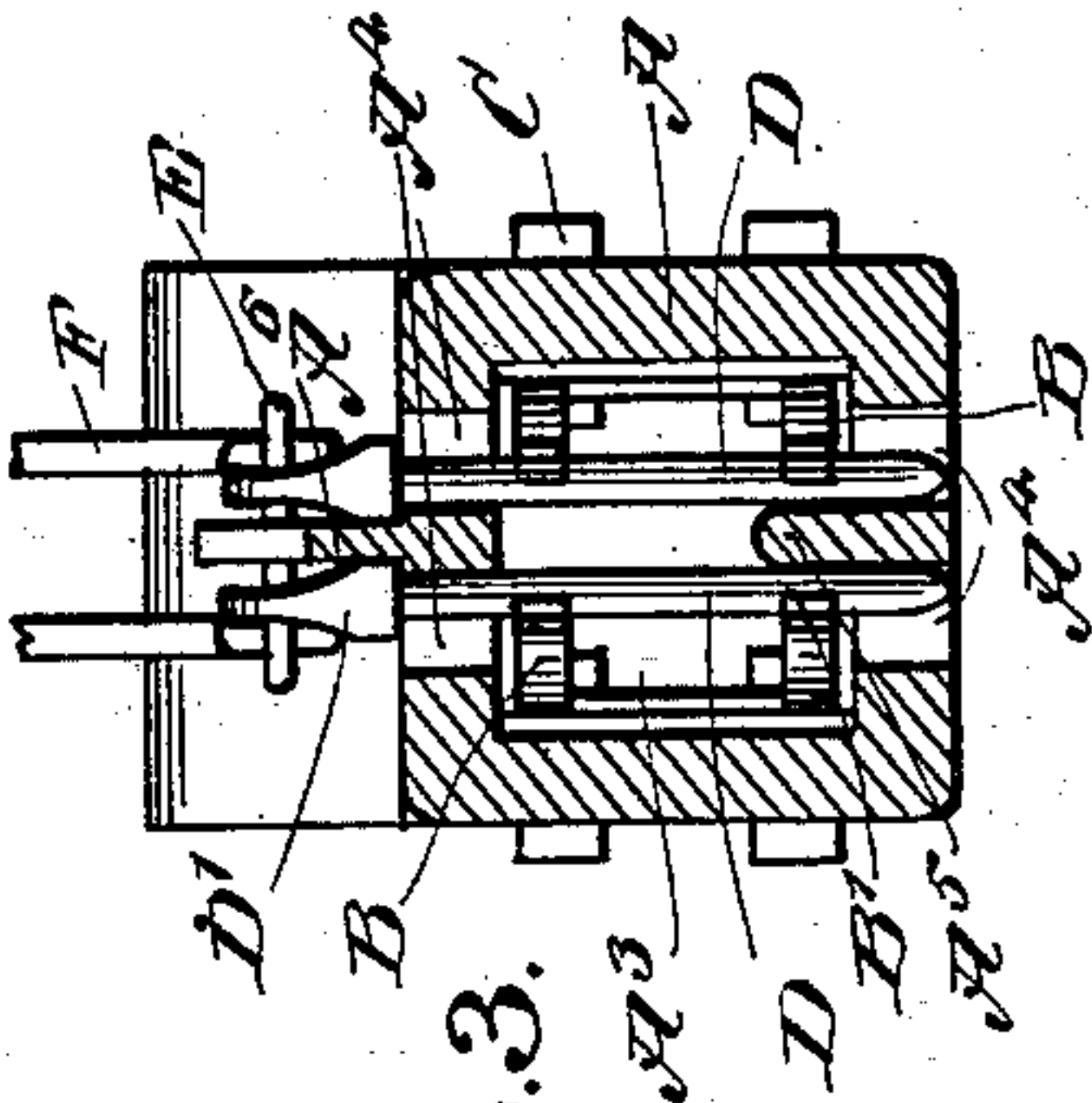
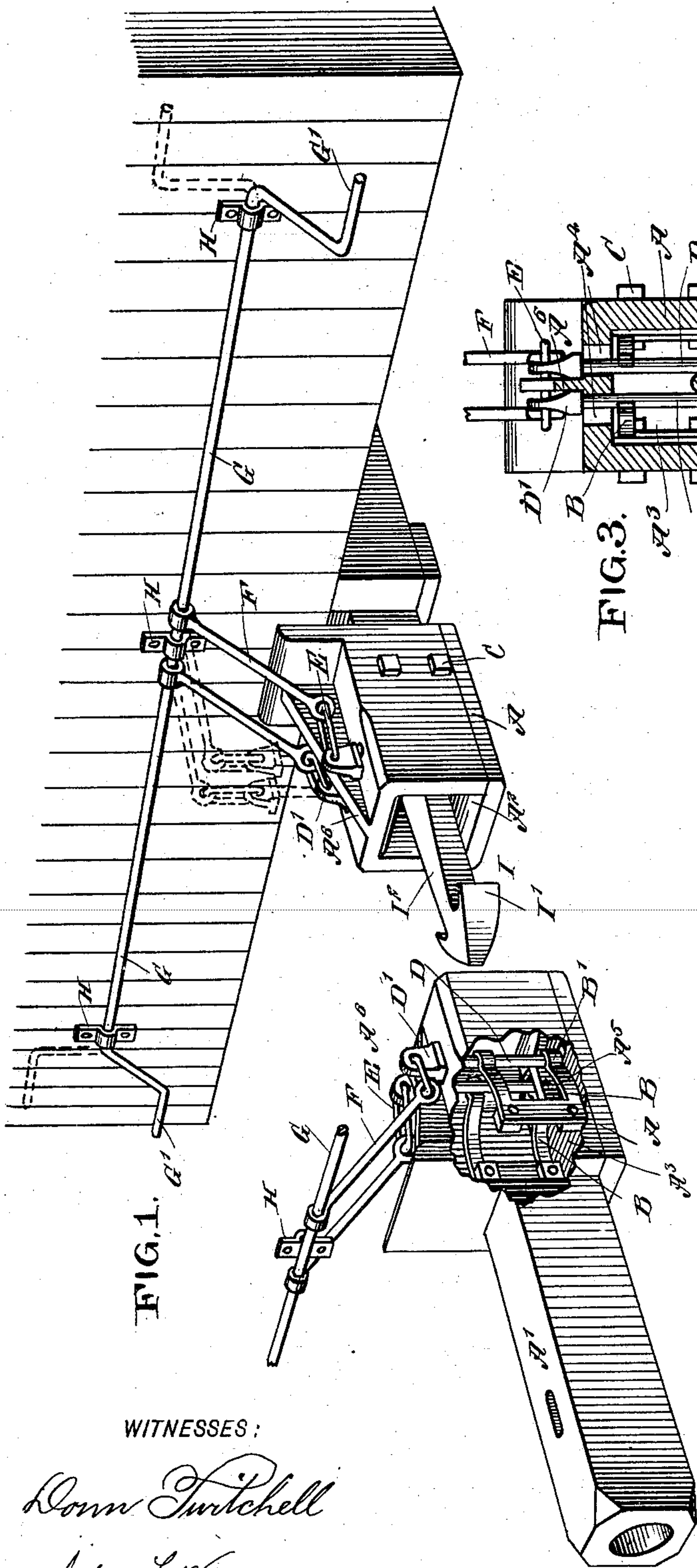
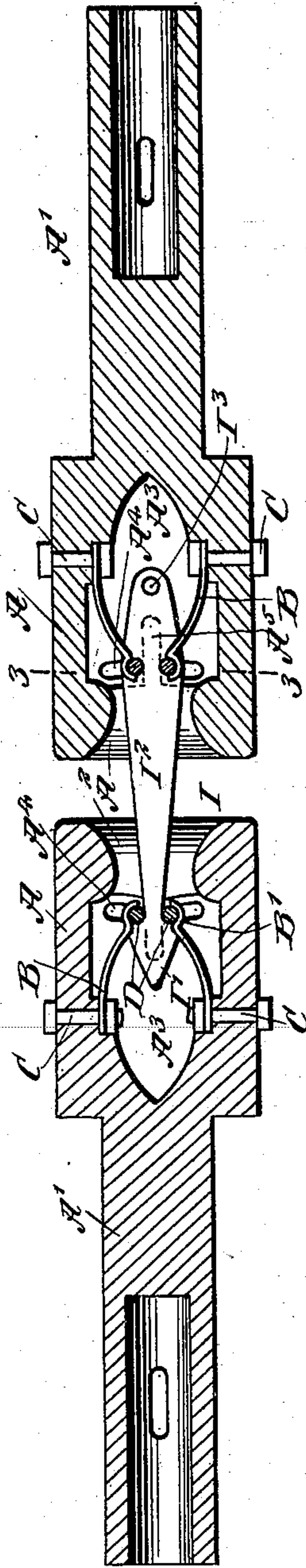


FIG. 2.



WITNESSES:

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MARK A. BROWN, OF DOUGLAS, GEORGIA, ASSIGNOR OF ONE-HALF TO
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 654,941, dated July 31, 1900.

Application filed March 8, 1900. Serial No. 7,854. (No model.)

To all whom it may concern:

Be it known that I, MARK A. BROWN, a citizen of the United States, and a resident of Douglas, in the county of Coffee and State of Georgia, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description.

My invention relates to car-couplings in which a hook on one car is adapted to interlock with a retaining device on the other car.

The object of my invention is to provide a simple car-coupling of the above-indicated class in which the hook may be readily reversed and detached and in which a yielding lateral motion of the hook is allowed at each end.

The invention consists in the particular construction and arrangement of parts hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of two coupling-heads constructed according to my invention in a slightly-separated position. Fig. 2 is a sectional plan of the coupling with the parts connected, and Fig. 3 is a sectional elevation on line 3 3 of Fig. 2 with the coupling-hook omitted.

In carrying out my invention I employ a hollow draw-head or coupling-head A, provided with a shank A', which is connected with the car in any approved manner. At the outer end of the head A is an opening or throat A², which communicates with a chamber A³. Within said chamber are located springs B, secured at their rear ends by bolts C and having at their front ends curved portions B', forming seats for pins D, mounted to slide vertically in transverse slots A⁴ in the head A and also capable of moving laterally in said slots. The springs engage the outer surfaces of the pins and have a tendency to force them inward against central projections A⁵ A⁶ of the head A. The pins D have heads D', connected by links E with crank members F upon a shaft G, extending

transversely of the car and journaled in bearings H. This shaft may be turned by means of handles G'.

In connection with the parts so far described I employ a coupling-hook I, having an arrow-shaped head I' and the shank I², which immediately adjacent to the head I' is of about the same width as the projections A⁵ A⁶ of the draw-head A. At its other end the hook has two perforations or through-apertures at about the same distance apart as the inner ends of the transverse slots A⁴. These two perforations are located laterally of the longitudinal axis of the hook. In order to enable the hook to be used in connection with ordinary car-couplings, I may provide it with another through-aperture I³, located in the median longitudinal plane of the hook, as shown in Fig. 2.

The operation of my improved car-coupling is as follows: The pins D of one draw-head A are passed through the slots A⁴ and through the two adjacent perforations of the hook I, so that said hook is connected with the draw-head, as shown in Fig. 2, and projects therefrom, as shown in Fig. 1. The cars being then moved together, the arrow-head I' passes between the pins D of the next car and forces them apart against the tension of the springs B, the pins finally catching behind the arrow-head, as shown in Fig. 2. The cars are then securely connected and cannot become uncoupled accidentally. Uncoupling is generally effected by detaching the arrow-head of the hook from the car with which it is engaged. To this end the shaft G of said car is turned by means of the handle G', and this will cause the crank-arms F and pins D to be raised sufficiently to release the head of the hook. It is just as easy, however, by a corresponding manipulation to uncouple cars by detaching the shank of the hook from the car with which it is connected, (thus leaving the hook on the car which receives the arrow-head,) and this manner of uncoupling may be used under special circumstances, although, of course, it is preferable to leave the hook on the car which receives its shank, so that the hook will remain in readiness for coupling.

It will be seen that the draw-heads or coupling-heads A are constructed exactly alike, so that either the shank or the arrow-head of the hook I may be connected with the draw-head and a hook may be readily reversed or transferred from one car to another. By providing the aperture I⁸, I enable the hook to be used in connection with the well-known form of car-couplings in which a pin is passed through the end of the hook. The springs B B enable the pins D to yield laterally, not only when the arrow-head I' passes between them, as described, but likewise while the cars are running, so as to reduce the detrimental effect of jars and to preserve a good connection even on curves.

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

1. A car-coupling comprising a hollow head having transverse slots, pins movable in said slots vertically and transversely, springs for pressing said pins together, a coupling-hook having a head adapted to force the pins apart in coupling, and a shank connected with a car, and means for operating said pins to release the hook.

2. A car-coupling comprising a hollow head having transverse slots, pins movable in said slots vertically and transversely, springs for pressing said pins together, a coupling-hook having a head adapted to force the pins apart in coupling, and a shank having perforations adapted to receive the pins of another car, to

connect the hook with said car, and means for operating said pins to release the hook.

3. A car-coupling comprising a hollow head having transverse slots, pins alining transversely and movable in said slots vertically and transversely, a coupling-hook connected with a car at one end and having at its other end a head adapted to be locked by the said pins, and means for operating the pins to release the hook.

4. A car-coupling comprising a hollow head, pins alining transversely of the head and movable therein vertically, a coupling-hook having at one end a head adapted to be locked by the pins on one car, and at its other end transversely-alining apertures adapted to be engaged by the pins of another car, and means for operating the pins to release the hook.

5. A car-coupling comprising a hollow head having transverse slots, pins alining transversely and movable in said slots vertically and transversely, a coupling-hook having at one end a head adapted to be locked by the pins on one car, and at the other end transversely-alining apertures adapted to be engaged by the pins on another car, and means for operating the pins to release the hook.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARK A. BROWN.

Witnesses:

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D. W. GASKIN.