

(No Model.)

J. A. V. SMITH.

SPEEDER FLIER.

No. 355,794.

Patented Jan. 11, 1887.

Fig: 1.

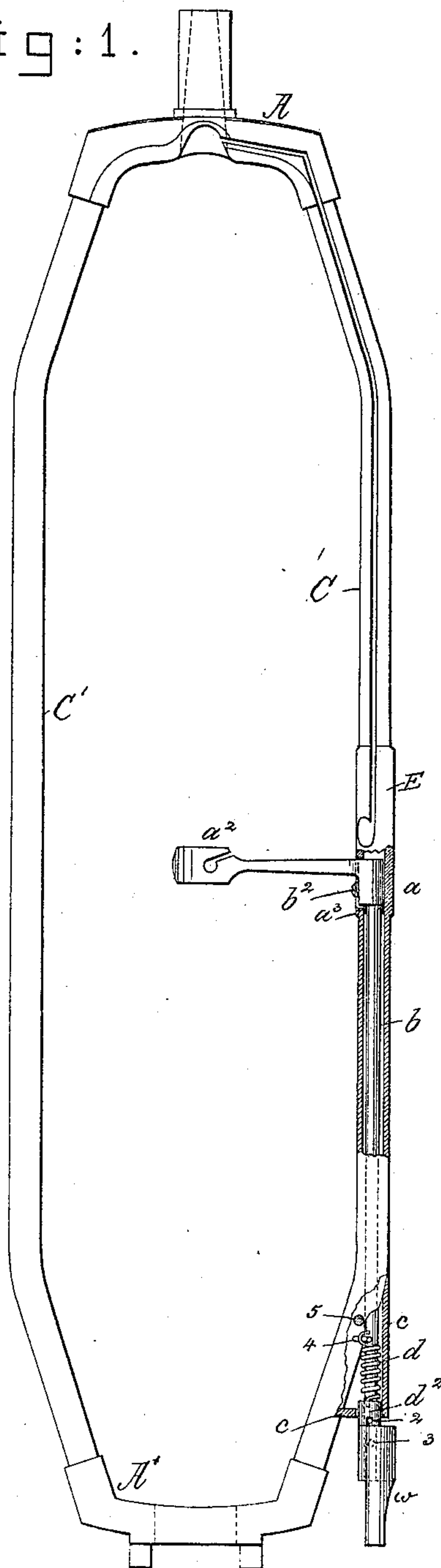


Fig: 3.

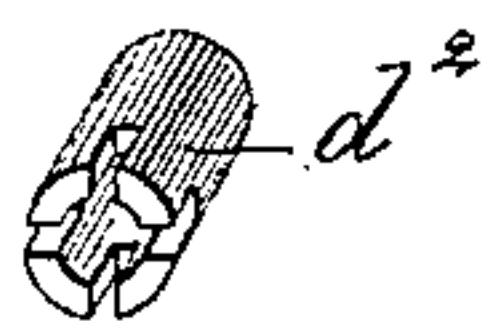
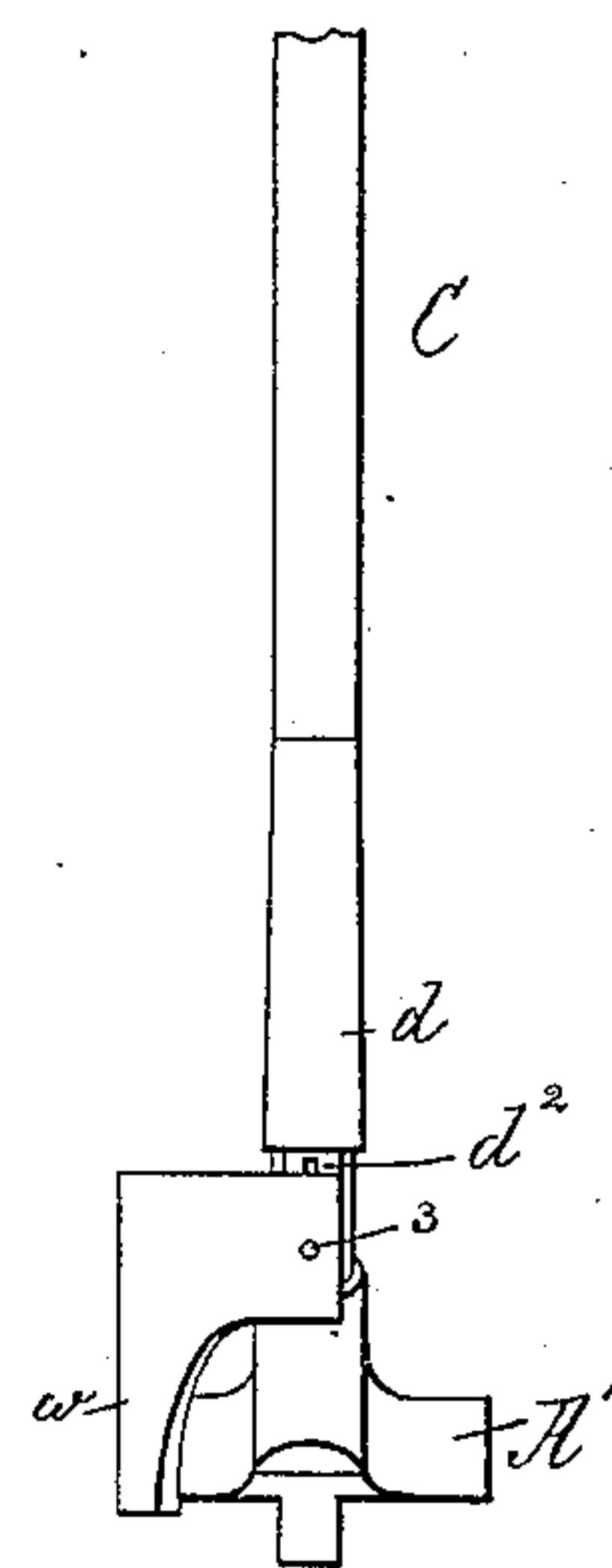


Fig: 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN A. V. SMITH, OF MANCHESTER, NEW HAMPSHIRE.

SPEEDER-FLIER.

SPECIFICATION forming part of Letters Patent No. 355,794, dated January 11, 1887.

Application filed March 29, 1884. Serial No. 125,971. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. V. SMITH, of Manchester, county of Hillsborough, State of New Hampshire, have invented an Improvement in Speeder-Fliers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention is an improvement on United States Patent No. 227,015, April 27, 1880, to which reference may be had, and has for its object to strengthen a flier of that class, support the presser-carrying rod in a novel manner, and to provide for the adjustment of the spring which controls the force with which the presser is held toward the center of the flier, the particular features in which my invention consists being pointed out in the claims at the end of this specification.

The flier referred to in the said patent, when put into practical use, was modified in construction by the application of a bearing-collar to the rod which carries the presser, the said collar being made to fit the interior of the hollow leg. Such a collar attached to the said rod necessitated making an opening through the side of the flier-leg large enough to receive it, thus weakening the said leg unnecessarily at such point.

In this my invention the hollow leg having the side opening for the reception of the rod to which is attached both the presser and the presser-controlling centrifugally-acting weight is re-enforced by a metallic leg-stiffening and rod-receiving block or shell, within which is placed the adjustable spring and notched collar by which the normal strength of the presser is regulated.

In this my invention the leg of the flier at the point where the hub of the presser is inserted in the opening made in its side is provided with a bearing-collar soldered or brazed into the said hollow leg, the said collar acting not only as a bearing on which the end of the presser-hub rests and turns, but also as a bearing for the rod.

Figure 1, in elevation, represents a flier embodying my invention, the same being partially broken out to illustrate its construction. Fig. 2 is a partial side view of the lower end of the flier, and Fig. 3 the spring-adjusting device or hub by itself.

The flier-legs C C', heads A A', and re-enforcement E are substantially as in United States Patent No. 110,617, dated January 3, 1871.

The hollow leg C is provided at one side with an opening to receive the hub a of the presser a^2 , and immediately at the lower end of the said opening the leg is provided at its inner side with a collar, a^3 , (shown in heavy black, Fig. 1,) the said collar forming a broad seat for the lower end of the hub a , and a bearing for the small rod b , to the upper end of which the said presser is connected by a screw, b^2 , the said collar sustaining the entire weight of the said rod and its attached parts.

The flier-leg C is provided at its outer side, where the said leg is bent inwardly, with a hole just large enough for the rod b , which is made just as small as possible, and at its outer side the said leg, about the point where the said hole is cut through it, is provided with a strengthening block or shell, c , brazed thereto, the said block or shell forming not only a brace for the hollow leg where the same is weakened by making the said hole, but also making a chamber for the reception of the spring d and the spring-adjusting device d^2 , made as a hub attached to the lower end of the said spring, the said hub being notched at several places, (see Fig. 3,) to engage a pin, 2, fixed to the said rod a little above the weight, which is secured to the lower end of the said rod by a suitable pin, as at 3.

The upper end of the spring d is attached to the pin 4, fast to the leg C. By turning the hub d^2 more or less, to coil up the spring d , and then engaging one or the other of the notches of the hub with the pin 2, the normal pressure of the presser toward the center of the flier may be regulated. A pin, 5, may be passed through the block or case and leg C, to give additional strength to the junction between them.

I claim—

1. The hollow flier-leg provided with an opening on its inner side and a bearing therein, and an opening at its lower outer end, and the block or shell connected with the flier-leg about the last-named opening to strengthen the flier-leg, combined with the rod b , arranged in said hollow leg, a presser on said rod borne on the bearing in the upper opening in said leg, and

thereby supporting the rod, and a spring on the lower end of said rod for connecting the rod and flier and inclosed in said block or shell, substantially as described.

- 5 2. The hollow flier-leg provided with an opening for the hub of the presser, and with a second opening for the passage of the rod *b*, and the block or shell connected with the flier-leg about the latter opening to strengthen the
10 flier-leg, combined with the rod *b*, the presser attached to its upper end, and the weight attached to its lower end, and with the spring

and spring-adjusting device, and with means to connect the said hub and spring to the rod and flier, substantially as and for the purpose 15 set forth.

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

JOHN A. V. SMITH.

Witnesses:

C. H. BARTLETT,
GEO. F. MOORE.