(No Model.)

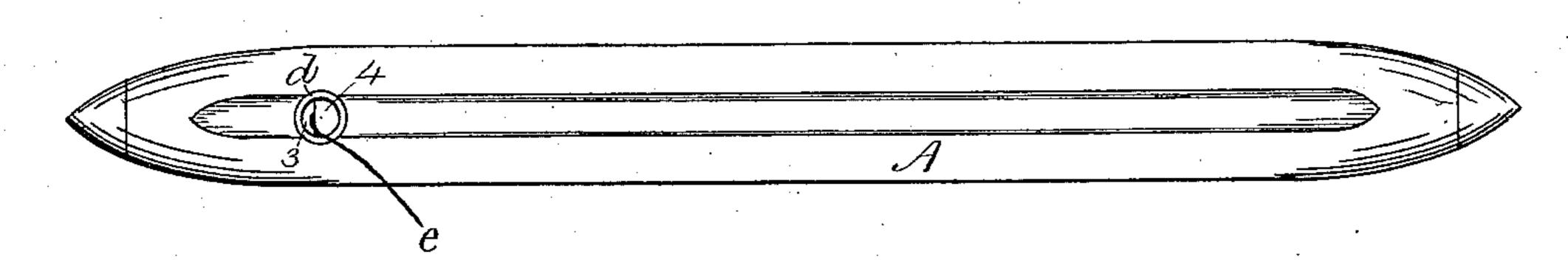
A. CLAUS.

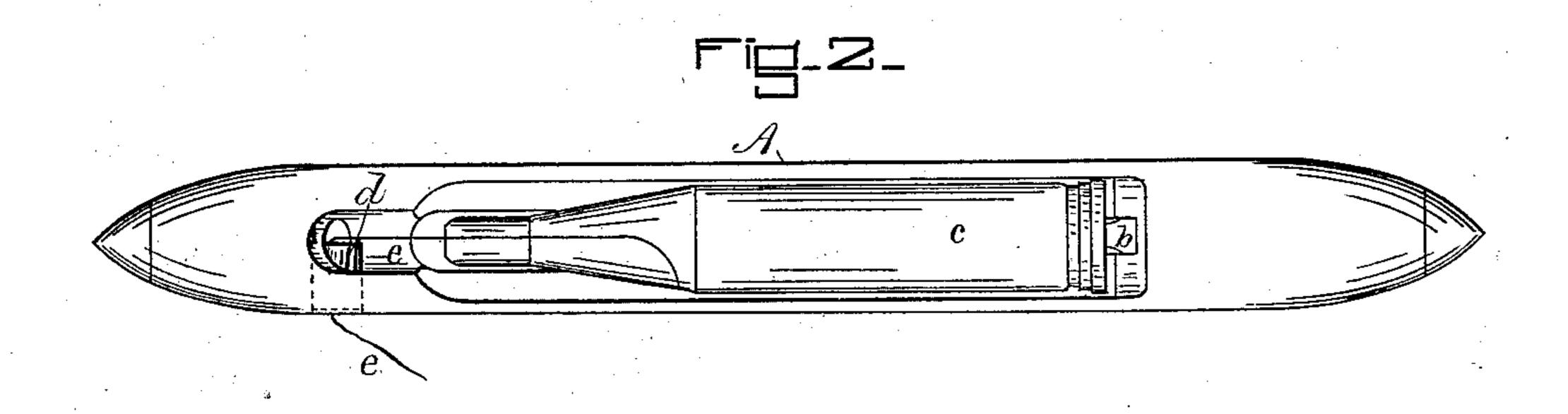
LOOM SHUTTLE.

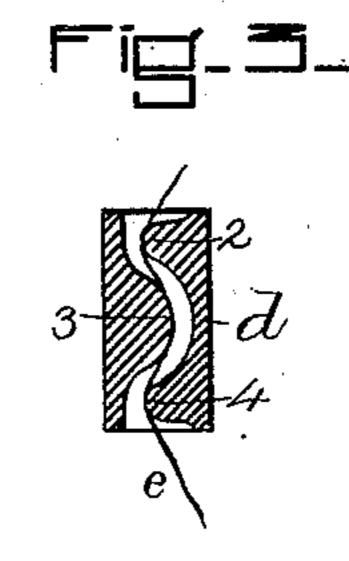
No. 280,797.

Patented July 10, 1883.









WITNESSESS Q.O.Orma Fred A. Prwell Adolph Claus

By Crosby Sregory

Otttys.

United States Patent Office.

ADOLPH CLAUS, OF LOWELL, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO J. S. LUDLAM, OF SAME PLACE.

LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 280,797, dated July 10, 1883.

Application filed January 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, Adolph Claus, of Lowell, county of Middlesex, State of Massachusetts, have invented an Improvement in Loom-Shuttles, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide to the shuttle with a simple and efficient tension-regulating delivery-tube, to take the place of the usual delivery-eye and prevent the yarn

or thread from kinking.

Myinvention consists, essentially, in an openended tension-regulating delivery-tube having interior ribs or projections, combined with and inserted into the wall of the shuttle, the said tube serving as the yarn-delivery eye for the shuttle.

Figure 1 represents in side elevation a loom-shuttle embodying my invention; Fig. 2, a top view thereof, and Fig. 3 an enlarged longitudinal section of the tension-regulating delivery-tube.

The shuttle-body A, spindle b, and bobbin c are and may be all as usual. The wall of the shuttle has secured in it the open-ended tension-regulating delivery-tube, composed of a metal tube, d, provided at points between its

o ends with a suitable number of ribs or yarn-deflecting projections, 2 3 4, between which the yarn e is drawn, as shown in Fig. 3, the yarn in its passage over and between the said projections being subjected to a certain amount of tension to prevent too free rendering of the

said yarn from the bobbin, and acting also to prevent the said yarn from kinking.

Most loom-shuttles have a bone eyelet or delivery-tube located at the point occupied by my improved tension-regulating tube; but the 40 yarn, before entering the said eye or tube, is commonly subjected to the action of an independent tension device, over or through which the yarn is passed or has to be threaded, the said tension device being usually located somewhere near the end of the spindle and between it and the usual delivering-eye.

In this my improved shuttle the yarn is delivered through the wall of the shuttle by a tube, which also acts as a tension-regulating 50 device to hold the yarn with the requisite friction to prevent it from slipping or moving except just for the distance necessary.

The yarn may be readily introduced through the tube d by suction, as in the old plan.

I do not broadly claim a device with an irregular slot therein, through which thread or yarn may be drawn.

I claim—

A loom-shuttle provided with a delivery-eye 60 having yarn-deflecting projections therein to give tension to the outgoing yarn, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two sub- 65 scribing witnesses.

ADOLPH CLAUS.

Witnesses:

W. F. HILL, EDWARD P. DENNIS.