

(No Model.)

J. SCHMACKELSEN.

FOUNTAIN PEN.

No. 364,772.

Patented June 14, 1887.

Fig. 1.

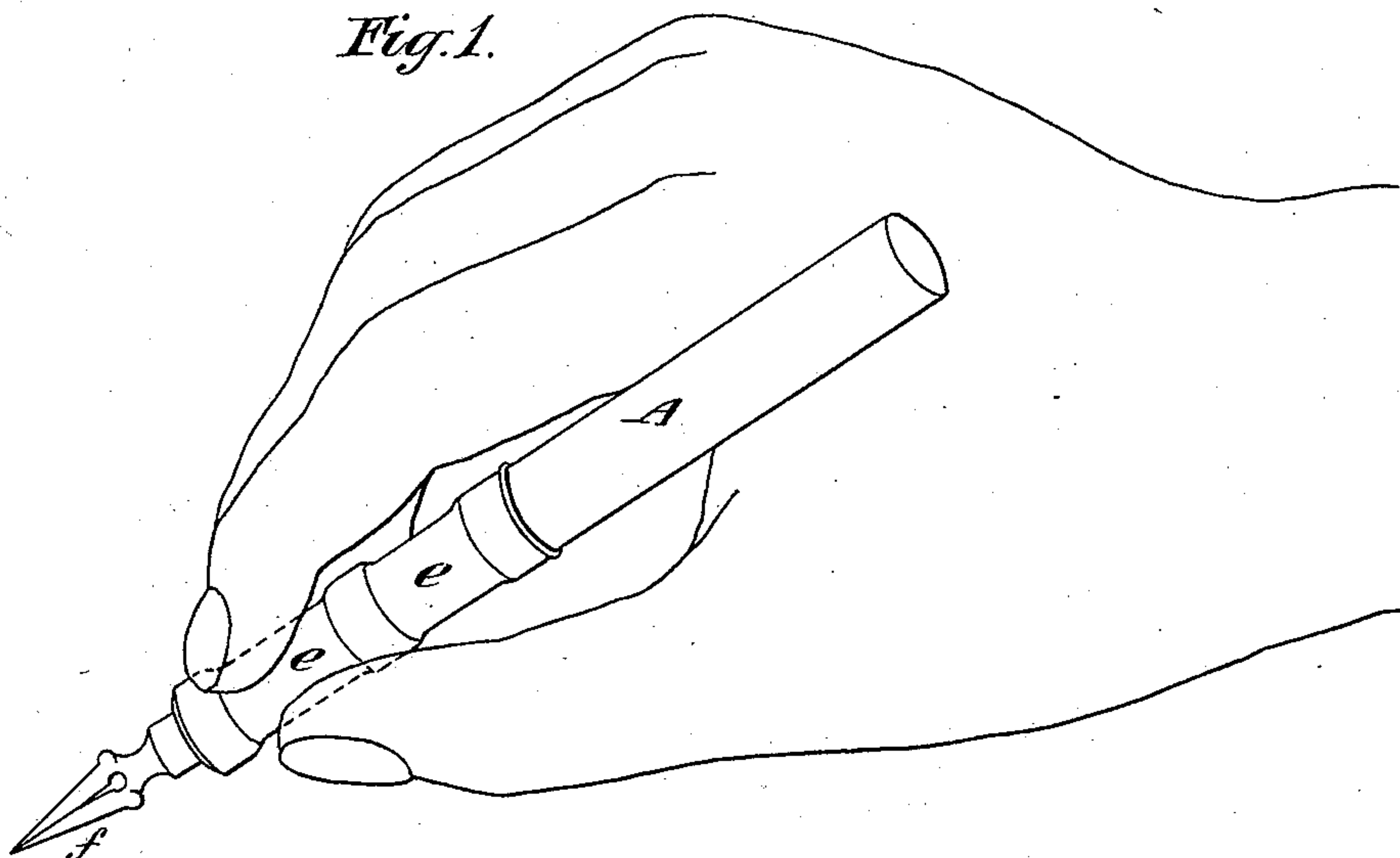


Fig. 2.

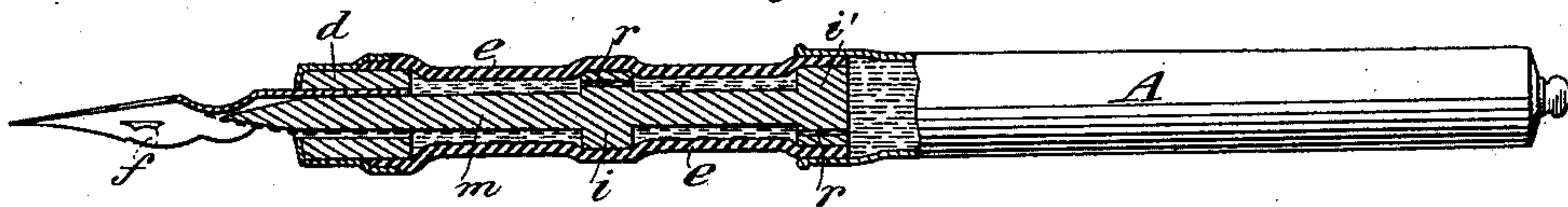
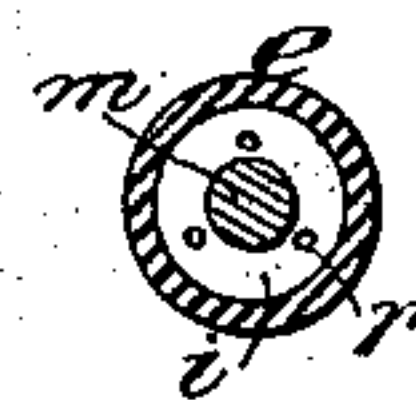


Fig. 3.



Witnesses:

O. Sundgren.
Emil Herter.

Inventor:

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by attorneys
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JENS SCHMACKELSEN, OF ALTONA, PRUSSIA, GERMANY.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 364,772, dated June 14, 1887.

Application filed March 12, 1887. Serial No. 230,577. (No model.)

To all whom it may concern:

Be it known that I, JENS SCHMACKELSEN, of Altona, in the Kingdom of Prussia and Empire of Germany, have invented a new and useful Improvement in Fountain-Pens, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to that class of fountain-pens in which there is arranged between the reservoir and the pen-holder a flexible tube, which forms between the reservoir and the pen within the holder a flexible conduit, through which ink is forced to the pen by the pressure of the fingers in writing.

The improvement consists in a novel combination of parts, hereinafter described and claimed, in such a fountain-pen, whereby its construction is simplified.

The invention is illustrated by the accompanying sheet of drawings, in which Figure 1 represents in perspective an outside view of the pen or holder while in use. Fig. 2 is a longitudinal view, partly in section; and Fig. 3, a cross-section through that part of the pen held by the finger ends while writing.

The upper part, A, of the holder contains the reservoir for reception of the ink. To the lower end of this part A is attached an elastic tube, *e*, made of india-rubber or other suitable yielding material. The free end of this tube *e* is furnished with a ring or socket, *d*, for reception of pen *f*. Inside of tube *e*, and between A and *d*, is a central body, *m*, made of wood, ebonite, or other material not destructible by the influence of ink. This body *m* is a mere straight rod or stick without any internal chamber or passage, and of so much smaller diameter than the tube *e* that a free space remains between said body and tube, and the said body is kept in position within the tube by two or more circular enlargements, *i* and *i'*, provided on its exterior. The end of the body *m* passes through the ring *d*, as will be understood by reference to Fig. 2 of the drawings, and it leaves a free annular space between itself and ring *d*, so that the two constitute a holder for the pen *f*. The enlargements *i* and *i'* are each furnished with one or more very

small holes or grooves, *r*, so that ink can pass from the reservoir to the pen if a certain pressure is exerted upon the ink contained in the reservoir.

The operation of the pen is as follows: When the pen has to be used, ink is forced from the reservoir to the pen by a piston or any other arrangement well known for this purpose in fountain-pens. This part being common, it is not shown in the drawings. The pen when in use is held by the writer in the usual manner, as shown in Fig. 1, and the pressure of the fingers which is exerted upon the elastic tube *e*, and which while writing involuntarily changes in strength and ceases during moments of rest, causes a portion of the ink accumulated between body *m* and tube *e* to be forced to the pen to feed the latter through the annular space between the central body, *m*, and the ring *d*. The size of holes *r* must be in a certain proportion to the annular free space leading the ink to pen *f* to regulate the feed. These openings must also be made in proportion relative to the lighter or heavier hand of the person using the pen. In the before-described manner, after once having brought the pen into action the writer himself produces a regulated feeding of the pen by the involuntary changes of pressure of the fingers keeping the pen exerted to the elastic part *e*.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the reservoir A, the flexible tube *e*, attached thereto, the central body, *m*, consisting of a rod or stick extending through said tube and having perforated or grooved enlargements *i* for the support of said tube, and the ring *d*, attached to the front end of the said tube and surrounding the said body, with an annular space between it and said body to form both the holder for the pen and a passage for conducting the ink to the latter, substantially as herein described.

JENS SCHMACKELSEN.

Witnesses:

ED. BAUER,
MAX BENDIXEN.