N° 6677 A.D. 1900

Date of Application, 10th Apr., 1900

Complete Specification Left, 19th Nov., 1900—Accepted, 26th Jan., 1901

PROVISIONAL SPECIFICATION.

Improvement in Fountain-pens.

I, EDUARD REISERT, of 129, Frankfurterstrasse, Hennef (Sieg), Germany, Mechanical Engineer, do hereby declare the nature of this invention to be as follows:—

My invention relates to improvements in fountain-pens, in which the ink is conveyed to the pen by pressing upon a button; and has for its chief object to provide means for sucking the ink contained in the pen proper back into the ink-reservoir.

In order to make my invention more clear I refer to the accompanying drawings in which the improvement is shown as applied to three different constructions of fountain-pens.

Fig. 1 is a vertical section of the first construction of fountain-pens provided with the new arrangement. Fig. 2 is a horizontal section of the same on line A—B of Fig. 1. Fig. 3 is a vertical section of the same at the moment when the ink is conveyed to the pen, Fig. 4 is a vertical section of the second construction of fountain-pens provided with the new arrangement, Fig. 5 is a vertical section of a third construction of the same.

In the construction shown in Figs. 1, 2 and 3 the reservoir *a* for the ink is connected with the pen by means of the rubber-hose *b*. This rubber-hose *b* is closed on its lower end by the nose *c* of a pressing piece *e* which pressing piece is pressed against the rubber hose *b* by the spiral-spring *d*. Opposite to the pressing piece *e* a pressing piece *g* provided with a nose *h* is situated upon the rubber-hose *b*. This pressing piece *g* is held in its position by means of the ring *f*. In the position shown in Fig. 1, that is to say, when the fountain-pen is in use, the hose *b* is open at its upper end, while at its lower end it is closed by the nose *c*. The pressing piece *g* is provided with a button *i* for laying on the thumb of the writing hand. This button *i* is situated near the nose *h*, whereby it is attained that as soon as a pressure is applied to this button the communication of the hose *b* with the reservoir *a* is interrupted by the nose *h*. At the same time the walls of the hose *b* are compressed on that part upon which the pressing piece *g* is situated so that the ink contained in this part of the hose *b* is forced to leave the same. If now the pressure exercised upon the button *i* by the thumb of the writing hand is greater than the pressure of the spiral spring *d* the nose *c* will be pressed back and in consequence thereof the ink will flow to the pen. As by the pressure exercised upon the button *i* only a small quantity of the ink can be conveyed to the pen and as at the same moment when the pressure ceases the hose is closed again by the spiral spring *d* so that no more ink can flow to the pen, the supply of ink is strictly regulated.

In order to be able to bring the ink contained in the pen back into the reservoir *a*, the pressing-piece *e* is provided with a button *k* by means of which it can be pressed back, so that the nose *c* can not close any more the rubber hose *b*,

[Price 8d.]

As now by the ink flowing out the air in the reservoir a is rarefied, the ink contained in the pen will immediately be sucked back as soon as the rubber hose b is not closed any more.

In the construction shown in Fig. 4 of the accompanying drawing the ink flows from the reservoir a^1 into the elastic chamber e^1 upon which a pressing piece i^1 is situated. By pressing upon this pressing piece the channel r is closed and the ink contained within the intermediate chamber e^1 is separated from the ink contained in the ink-reservoir a^1. When thereafter the elastic chamber is still further compressed the ink is driven from the intermediate chamber into the pipe or hose b^1. This pipe is usually closed by the legs of a clamp c^1. As soon as the pressure in the intermediate chamber is great enough to overcome the pressure exercised by the legs of the clamp, these legs will be separated and the ink will be driven out into the pen.

In order to be able to suck the ink contained in the pen back into the ink reservoir, a frame s provided with a pressing button k^1 is fixed to one leg of the clamp c^1 surrounding the other leg of the same. By pressing upon the button k^1 the respective leg of the clamp is pressed back so that the ink contained in the pen will be sucked through the hose b^1 and the intermediate chamber e^1 back into the reservoir a^1, by the rarefication of the air contained in the same.

The construction shown in Fig. 5 differs from the preceding one by the clamp c^1 being replaced by a lever l which is pressed against the rubber-hose b^2 by means of a spring m. This lever l is not lifted off as in the preceding constructions by the pressure in the intermediate chamber but immediately by the pressing piece i^2 which for this purpose is provided with a groove o. The sucking back of the ink is effected in this construction by pressing upon the button k^2 fixed to the lever l.

Dated this 6th day of April 1900.

MAX WESCHER,
Agent for the Applicant.
12—14, Salomonsgasse, Cologne, Germany.

COMPLETE SPECIFICATION.

Improvement in Fountain-pens.

I, EDUARD REISERT, of 129, Frankfurterstrasse, Hennef (Sieg), Germany, Mechnical Engineer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

My invention relates to improvements in fountain-pens, in which the ink is conveyed to the pen by a pressure, and has for its chief object to provide means for sucking the ink contained in the pen proper back into the ink-reservoir.

In the drawings which accompanied the Provisional Specification, Fig. 1 is a vertical section of the first construction of fountain-pens provided with the new arrangement, Fig. 2 is a horizontal section of the same on line A—B of Fig. 1. Fig. 3 is a vertical section of the same at the moment when the ink is conveyed to the pen, Fig. 4 is a vertical section of the second construction of fountain-pens provided with the new arrangement, Fig. 5 is a vertical section of a third construction of the same.

In the drawing hereunto appended, Figs. 6 and 7 show a modification of the construction shown in Figs. 1, 2 and 3.

In the construction shown in Figs. 1, 2 and 3 the reservoir a for the ink is

connected with the pen by means of the rubber-hose *b*. This rubber-hose *b* is closed on its lower end by the nose *c* of a pressing piece *e* which pressing piece is pressed against the rubber hose *b* by the spiral-spring *d*. Opposite to the pressing piece *e* a pressing piece *g* provided with a nose *h* is situated upon the rubber-hose *b*. This pressing piece *g* is held in its position by means of the ring *f*. In the position shown in Fig. 1, that is to say, when the fountain-pen is in use, the hose *b* is open at its upper end; while at its lower end it is closed by the nose *c*. The pressing piece *g* is provided with a button *i* for laying on the thumb of the writing hand. This button *i* is situated near the nose *h*, whereby it is attained that as soon as a pressure is applied to this button the communication of the hose *b* with the reservoir *a* is interrupted by the nose *h*. At the same time the walls of the hose *b* are compressed on that part upon which the pressing piece *g* is situated so that the ink contained in this part of the hose *b* is forced to leave the same. If now the pressure exercised upon the button *i* by the thumb of the writing hand is greater than the pressure of the spiral spring *d* the nose *c* will be pressed back and in consequence thereof the ink will flow to the pen. As by the pressure exercised upon the button *i* only a small quantity of the ink can be conveyed to the pen and as at the same moment when the pressure ceases the hose is closed again by the spiral spring *d* so that no more ink can flow to the pen, the supply of ink is strictly regulated.

In order to be able to bring the ink contained in the pen back into the reservoir *a*, the pressing-piece *e* is provided with a button *k* by means of which it can be pressed back, so that the nose *c* can not close any more the rubber hose *b*. As now by the ink flowing out, the air in the reservoir *a* is rarefied, the ink contained in the pen, will immediately be sucked back as soon as the rubber hose *b* is not closed any more.

In the construction shown in Fig. 4 of the accompanying drawing the ink flows from the reservoir a^1 into the elastic chamber e^1 upon which a pressing piece i^1 is situated. By pressing upon this pressing piece the channel *r* is closed and the ink contained within the intermediate chamber e^1 is separated from the ink contained in the ink-reservoir a^1. When thereafter the elastic chamber is still further compressed the ink is driven from the intermediate chamber into the pipe or hose b^1. This pipe is usually closed by the legs of a clamp c^1. As soon as the pressure in the intermediate chamber is great enough to overcome the pressure exercised by the legs of the clamp, these legs will be separated and the ink will be driven out into the pen.

In order to be able to suck the ink contained in the pen back into the ink reservoir, a frame *s* provided with a pressing button k^1 is fixed to one leg of the clamp c^1 surrounding the other leg of the same. By pressing upon the button k^1 the respective leg of the clamp is pressed back so that the ink contained in the pen will be sucked through the hose b^1 and the intermediate chamber e^1 back into the reservoir a^1, by the rarefication of the air contained in the same.

The construction shown in Fig. 5 differs from the preceding one by the clamp c^1 being replaced by a lever *l* which is pressed against the rubber-hose b^2 by means of a spring *m*. This lever *l* is not lifted off as in the preceding constructions by the pressure in the intermediate chamber but immediately by the pressing piece i^2 which for this purpose is provided with a groove *o*. The sucking back of the ink is effected in this construction by pressing upon the button k^2 fixed to the lever *l*.

In the construction shown in Figs. 6 and 7 a pressing piece i^3 similar to that shown in Figs. 1, 2 and 3 is provided. This construction differs from that shown in Figs. 1; 2 and 3 by the projecting end *h* being remplaced by a small spiral spring h^3 and the pressing piece *e* being replaced by the small plate e^3 situated on the same side as the pressing piece i^3.

By pressing upon the button k^3 the plate e^3 provided with the nose c^3 is pressed back so that the ink contained in the pen will be sucked back

It must be understood that all the constructions shown can be used for writing

pens as well as for drawing pens. They can also be used without any pen as dropping arrangements and fillers for drawing pens and the like.

It will also be understood that the arrangement for sucking the ink contained in the pen proper back into the ink reservoir, can not only be used in the constructions shown but can be used in all constructions of fountain-pens in which the ink is conveyed to the pen proper by a pressure exercised upon a rubber hose or the like connecting the ink reservoir with the pen proper or upon the walls of an intermediate chamber situated between the reservoir and the pen proper.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1./ A fountain pen in which the ink is conveyed to the pen proper by exercising a pressure upon a rubber hose, connecting the reservoir for the ink with the pen proper or upon the elastic walls of an intermediate chamber situated between the reservoir and the pen proper and in which the ink, contained in the pen proper, can be sucked back into the ink reservoir by pressing upon a pressing button, substantially as described.

2./ In a fountain pen in which the ink is conveyed to the pen proper by exercising a pressure upon a rubber-hose, connecting the reservoir for the ink with the pen proper or upon the elastic walls of an intermediate chamber, situated between the reservoir and the pen proper, an arrangement for opening the device, which prevents the ink contained in the pen from being sucked back into the ink reservoir, substantially as described and for the purpose set forth.

Dated this 17th day of November 1900.

MAX WESCHER,
Agent for the Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Malcomson & Co., Ltd.—1901.

A.D. 1900. April 10. N°. 6677.

REISERT'S Provisional Specification.

(2 SHEETS)

SHEET 1.

SHEET 2

Fig. 1.

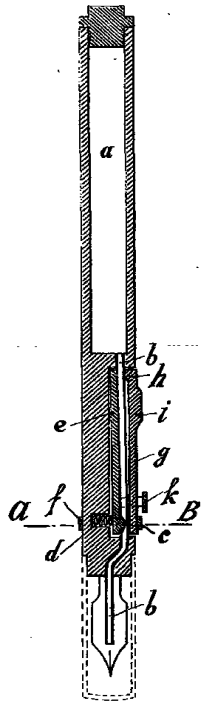

Fig. 3.

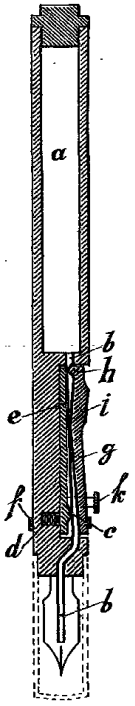

Fig. 2.

Fig. 4.

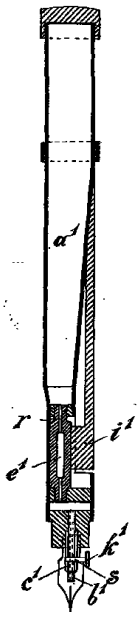

Fig. 5.

[This Drawing is a reproduction of the Original on a reduced scale.]

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A.D. 1900. APRIL 10. N°. 6677.

REISERT'S PROVISIONAL SPECIFICATION.

SHEET 1.

Fig. 1.

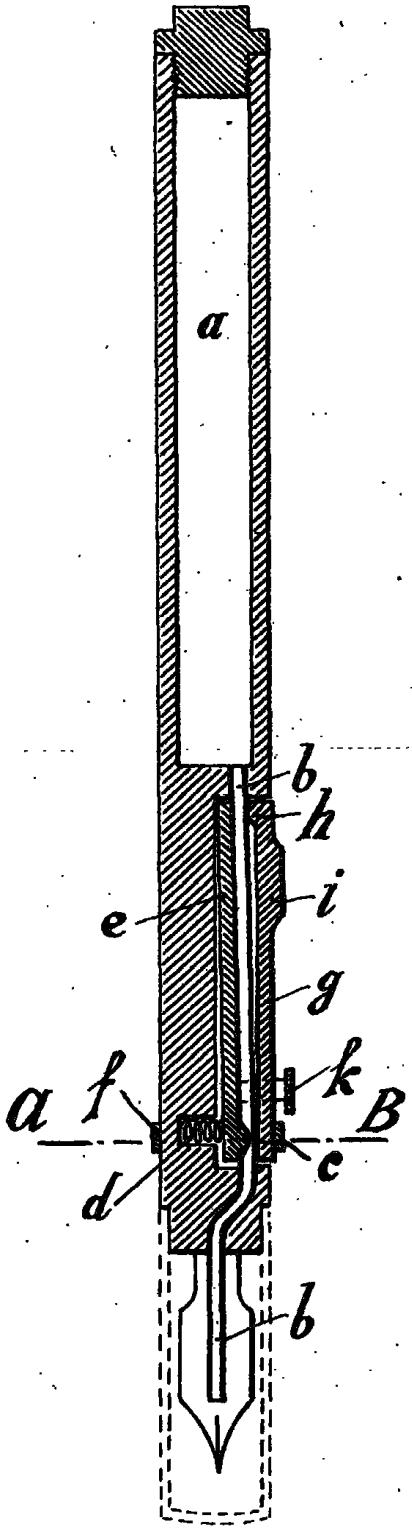


Fig. 3.

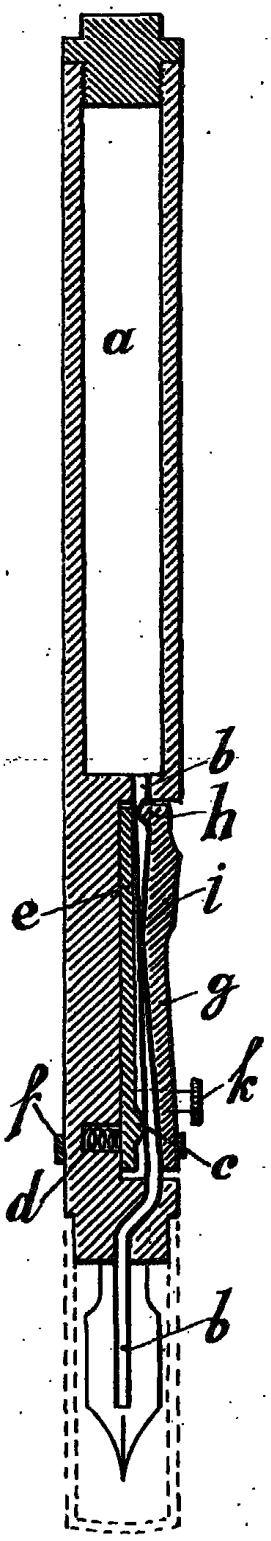


Fig. 2.

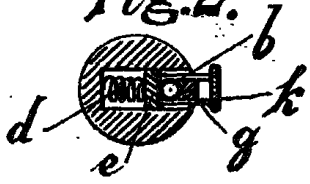


Fig. 4.

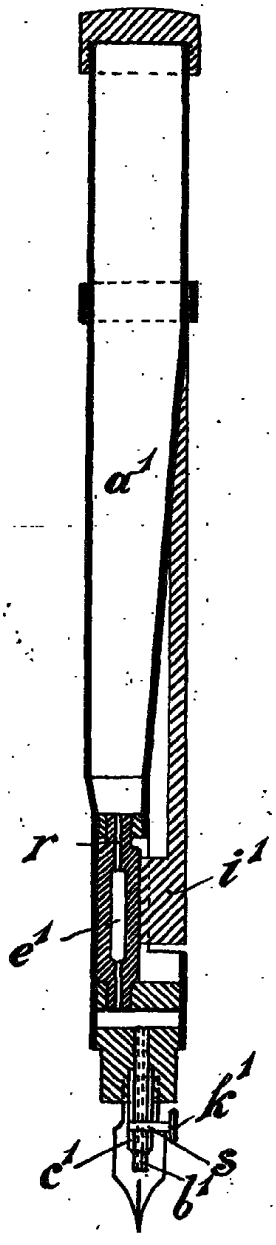
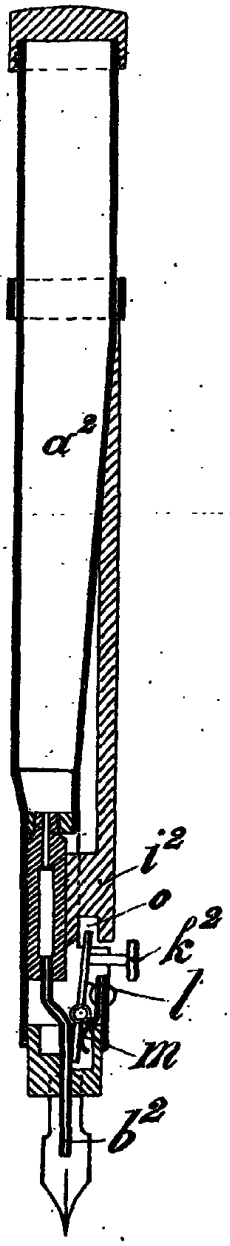


Fig. 5.

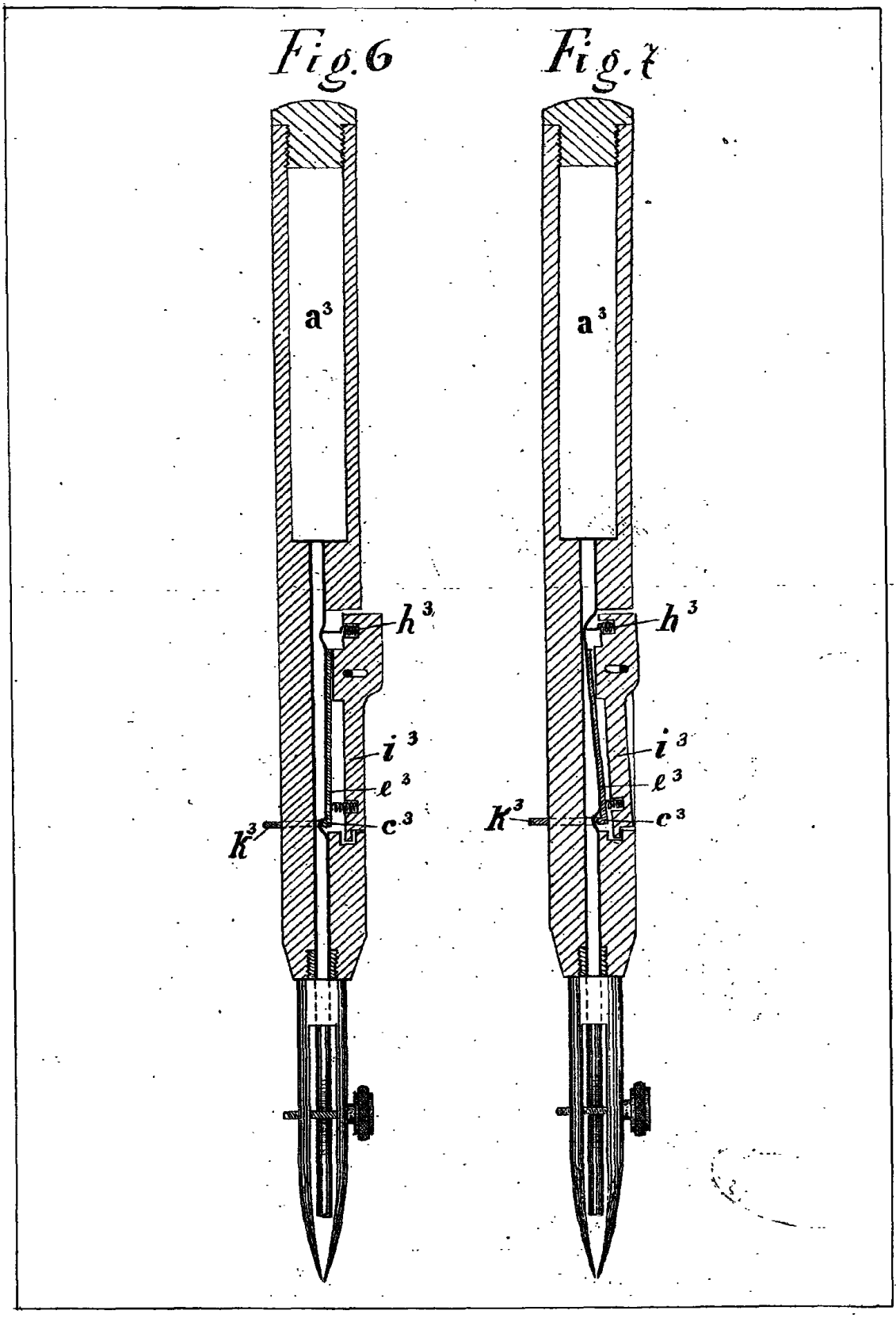


[This Drawing is a reproduction of the Original on a reduced scale.]

Malby&Sons, Photo-Litho.

A D. 1900. April. 10. N.° 6677.
REISERT'S Complete Specification.

(1 SHEET)



[This Drawing is a reproduction of the Original on a reduced scale.]

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