

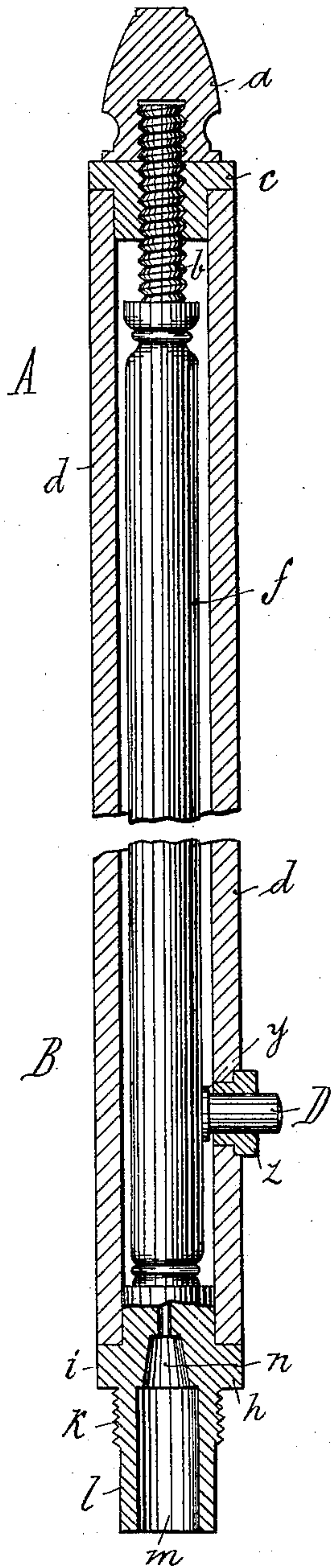
(No Model.)

I. LEUTNER.  
RESERVOIR PEN HOLDER.

No. 387,686.

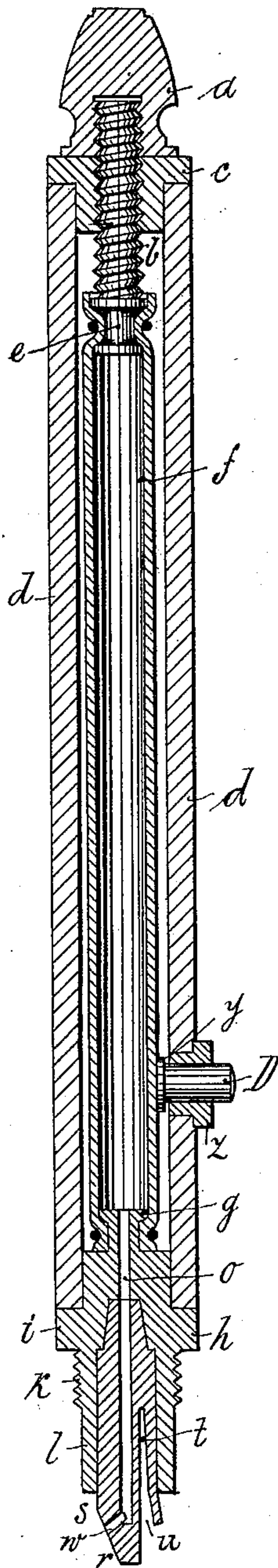
Patented Aug. 14, 1888.

*Fig: 1.*

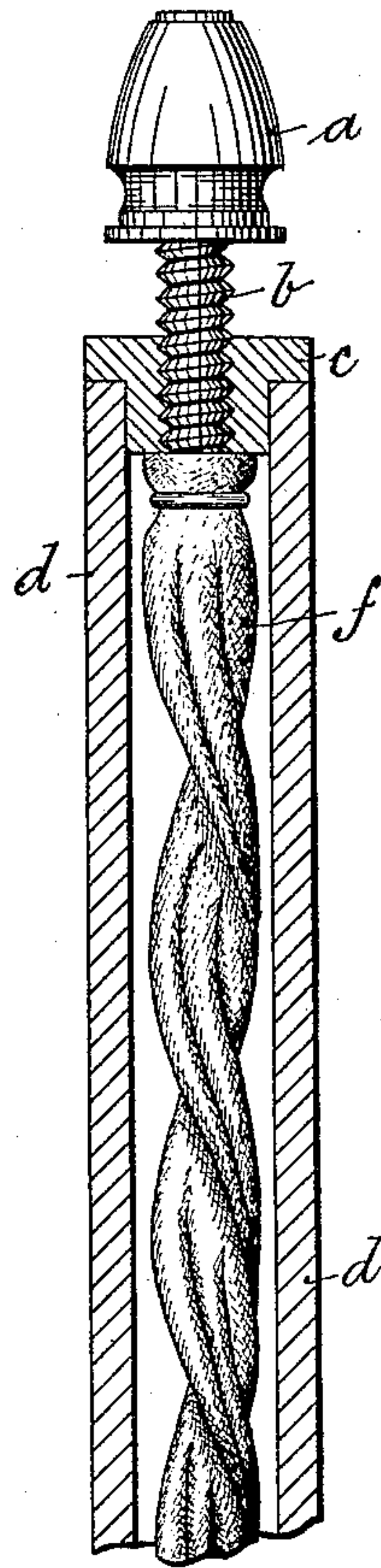


*Witnesses:*  
*C. J. Damer.*  
*A. R. Brown*

*Fig: 5.*

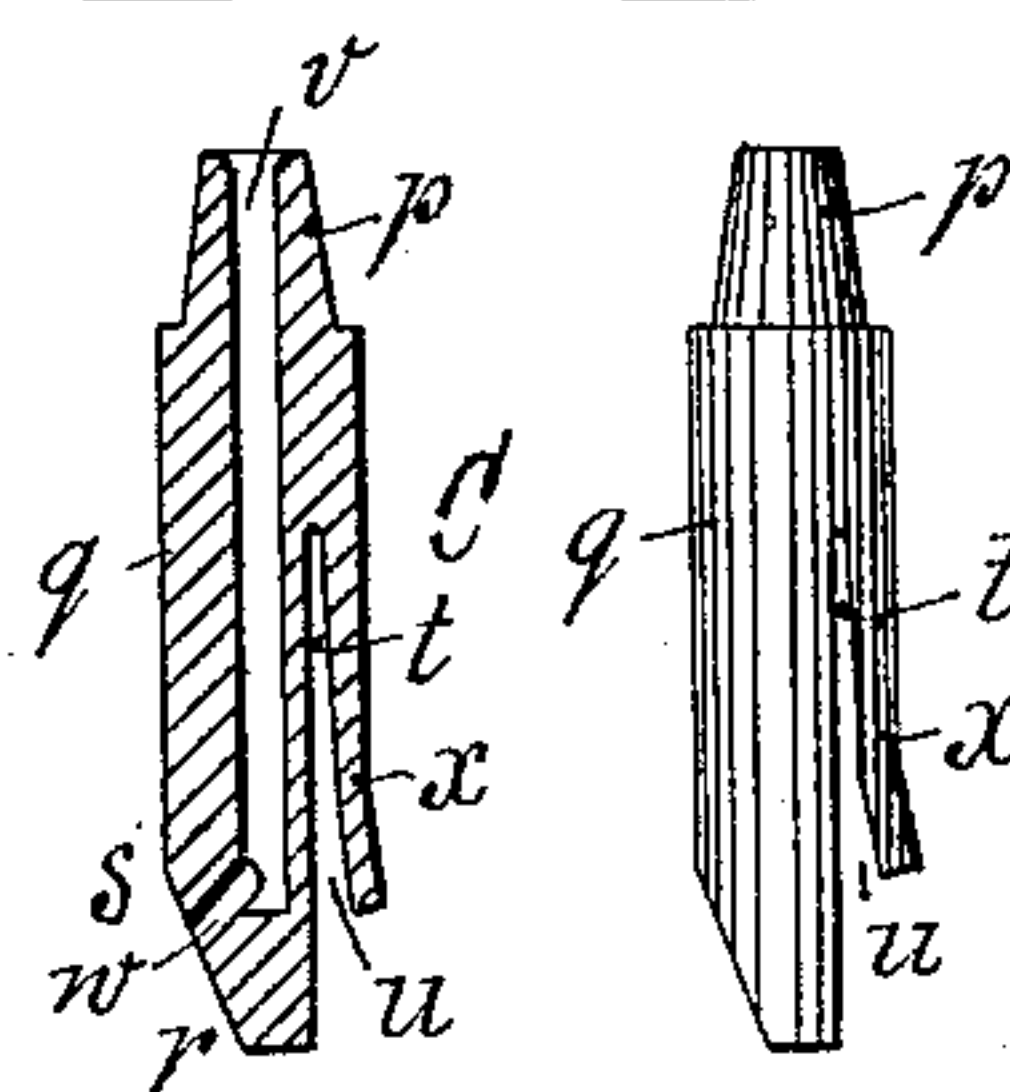


*Fig: 2.*



*Fig: 3.*

*Fig: 4.*



*Inventor,*  
*By Chas. J. Gogsch*  
*Ignaz Leutner,*  
*Attorney.*



# UNITED STATES PATENT OFFICE.

IGNAZ LEUTNER, OF HALLE-ON-THE-SAALE, PRUSSIA, GERMANY.

## RESERVOIR PEN-HOLDER.

SPECIFICATION forming part of Letters Patent No. 387,686, dated August 14, 1888.

Application filed May 10, 1886. Serial No. 201,712. (No model.) Patented in England March 29, 1886, No. 4,368.

*To all whom it may concern:*

Be it known that I, IGNAZ LEUTNER, of Halle-on-the-Saale, Prussia, Germany, have invented certain new and useful Improvements in Reservoir Pen-Holders, (for which a patent was issued to myself and another in Great Britain on the the 29th day of March, 1886, numbered 4,368,) of which I declare the following to be a specification.

10 This invention relates to improvements in reservoir pen-holders in which the ink-reservoir is located in the interior of the holder, and is composed of a closed tube of india-rubber or other appropriate water-tight elastic material.

15 Figure 1 is a broken longitudinal section of the holder, with the elastic reservoir in elevation, on an enlarged scale. Fig. 2 is a section of the upper part of the holder, with the knob screwed out and the elastic reservoir extended and put under torsion. Fig. 3 is a section of the clamp for holding the pen or writing-instrument, said clamp being inserted in the forward end of the holder. Fig. 4 is an elevation of Fig. 3. Fig. 5 is a longitudinal section of the complete holder.

20 The upper knob, *a*, is securely connected to the screw *b*, which runs through a suitably-flanged nut, *c*, which is inserted within and constitutes a stopper for the rear end of the cylinder or casing *d* of the holder.

25 The longer end of the screw *b* is provided with two suitable collars or flanges, between which the same is annularly recessed at *e*, so that the elastic reservoir *f* can be securely attached to the same by means of an elastic ring, or in other suitable manner.

30 The reservoir *f* consists of a piece of india-rubber tubing, which is, as aforesaid, attached securely to the forward end of the screw *b*. The forward end of the said reservoir *f* is attached to a stopper, *h*, provided with the flange *i* and annularly recessed rear end, *g*. This said stopper *h* is inserted in the forward end of the main tube *d* and protrudes a suitable distance into the interior of the same, so as to form a perfect closure, and also serve to receive the forward end of the elastic reservoir *f*, which is securely fixed to the annularly-recessed rear part, *g*, of the said stopper *h*, while the inward movement of the stopper is hin-

dered by the flange *i*, which is of like diameter and runs perfectly flush with the main tube or cylinder *d*. This said stopper is furthermore provided with screw-threads to receive a suitable cap for protecting the pen or writing-instrument, and forward of these said screw-threads *k* with a plain annular surface, *l*, and is further provided with a boring of three various diameters, *o n m*.

35 The boring *o*, which can be reamed out somewhat at its rear end, is in communication with the elastic reservoir, and when the pen-clamp is inserted also with the boring *v* of the same, as will be described later on in this specification.

40 The boring *n* is made somewhat conical, to receive the conical end *p* of the pen-clamp, while the boring *m*, into which the part *q* of the said clamp is inserted, is made of cylindrical form.

45 The pen-clamp is preferably made of vulcanite, ebonite, or other similar material, and is at its rear end turned off, or so formed that the conical part *p* is obtained, which, as aforesaid, is fixed or inserted into the conical boring *n* of the stopper *h*, while the tongue *x* of the clamp serves to hold the part *q* securely in the cylindrical part *m* of the stopper.

50 The pen-clamp, or the part employed for holding the pen or writing-instrument, is provided with a central boring, *v*, corresponding with the boring *o* of the stopper *h*, which said boring *v* is in communication with a short canal or boring, *w*, which connects at the one end with the boring or canal *v*, while the other open end is formed in the inclined surface *r s* at the foremost end of the clamp, and beneath the pen or writing-instrument, which is inserted between the outer surface, *q*, of the clamp and the inner surface of the cylindrical boring *m* of the stopper.

55 A tapered slot, *t u*, is made at the rear of the boring *v*, so as to form a spring-tongue, *x*, which serves to hold the clamp *q* securely in the boring *m* of the stopper *h*.

60 D is a small pin or stud provided at its inner end with a suitable head or flange, *y*, and which passes freely through an ebonite, vulcanite, or other bushing, *z*, while the head or flanged end is in contact with the elastic reservoir *f*, so that if the reservoir is provided



with ink or writing-fluid and pressure is exerted on the outer end of the said pin or stud D the elastic reservoir will be compressed and ink or writing-fluid forced to flow into the pen or other writing-instrument.

In order to fill the reservoir *f* with ink or writing-fluid, the knob or button *a* is screwed out, and as the space in the interior of the main tube *d* is longer than the said reservoir the elastic tubular reservoir *f* is not only extended, but so twisted that the air contained in the said reservoir is expelled. This position of the knob or button *a* and the elastic reservoir *f* is represented in Fig. 2 of the accompanying drawings. The pen or writing-instrument is now inserted into writing-fluid until the canal or boring *w* is covered by the said writing-fluid, whereupon the knob or button *a* is screwed back again into contact with the flanged nut *c*, so much suction will be created that the reservoir will be entirely filled with writing-fluid, which, after withdrawing the pen and pen-holder from the fluid in the ink-stand or other receptacle, will be retained in the reservoir *f* by the pressure of the atmospheric air, and will only then be caused to flow from the boring *w* when pressure is exerted on the pin or stud D, the capacity of the reservoir thus decreased and the writing-fluid caused to pass from the same through the borings *o* *v* *w* to the pen or writing-instrument. The arrangement of the boring *w* at an incline to the boring *v* prevents too large a quantity of ink from flowing into the pen.

When not in use, a suitable cap can be screwed over the writing-instrument to prevent the same from being injured, for which said purpose the screw-threads *k* on the stopper *h* are employed. It will from the foregoing specification be evident to all connected with this branch of industry that the various parts of my improved reservoir pen-holder can be modified in various ways without in any way departing from the tenor of my invention.

Having now particularly described and ascertained the nature of my said improvements in reservoir pen-holders and in what manner

the same is to be performed, I declare that what I claim is—

1. In a reservoir pen-holder, the combination, with a cylinder or casing having an ink-reservoir therein, of a stopper closing the front end of said tube and having a longitudinal ink-conveying passage communicating with the ink-reservoir and an outwardly-extending tubular portion, and a pen-clamp adapted to fit within said tubular extension of said stopper, and having a longitudinal ink-conveying passage, and at its outer end a transverse ink-conveying passage, and a spring-tongue adapted to hold said pen-clamp in position within said stopper, substantially as set forth.

2. A reservoir pen-holder comprising an open-ended cylinder or casing, a stopper closing the rear end thereof and having a threaded longitudinal bore therein, a screw extending through said bore and having a recessed and collared inner end and at its outer end an operating-knob, a longitudinally-bored stopper closing the front end of said casing and having an annularly-recessed inner end and an outwardly-extending outer end, an elastic reservoir connected at its respective ends with the inner ends of said screw and front stopper, a reservoir-compressing pin having a flanged inner end and extending transversely through an opening in the side of the casing, and a pen-clamp seated within the outwardly-extending tubular portion of the front closing stopper and having a spring securing-tongue and longitudinal and angular ink-conveying channels, substantially as set forth.

3. The combination of the cylinder or casing *d* and flexible reservoir *f* with the knob *a*, screw *b*, nut *c*, stopper *h*, clamp *g*, and the pressure-pin D, substantially as and for the purpose described in the specification, and shown in the accompanying drawings.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

I. LEUTNER.

Witnesses:

MAX RESCHKE,  
C. BORNGRAEBER.