

No. 894,446.

PATENTED JULY 28, 1908.

W. J. KNOLL.  
PRINTING PLATE HOLDER.  
APPLICATION FILED FEB. 29, 1908.

Fig. 1.

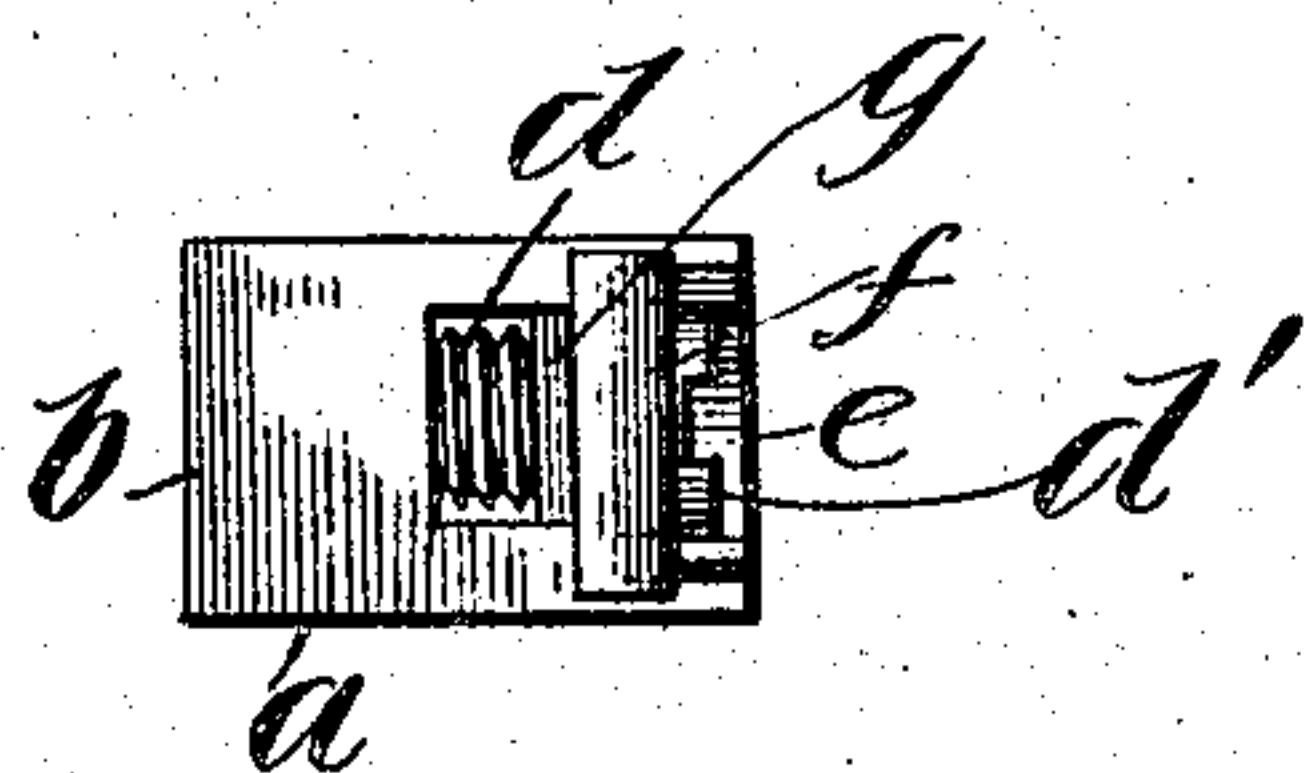


Fig. 2.

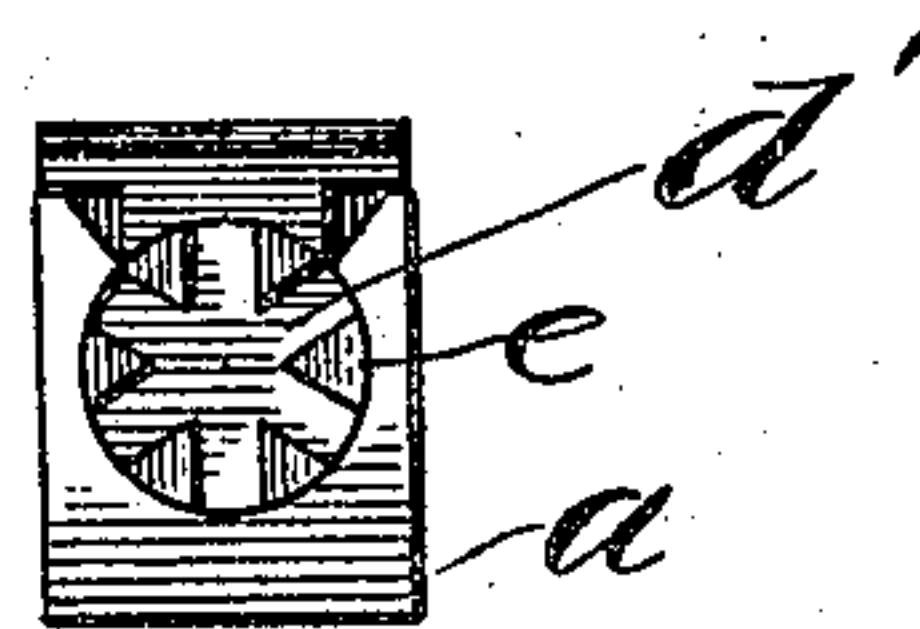


Fig. 3.

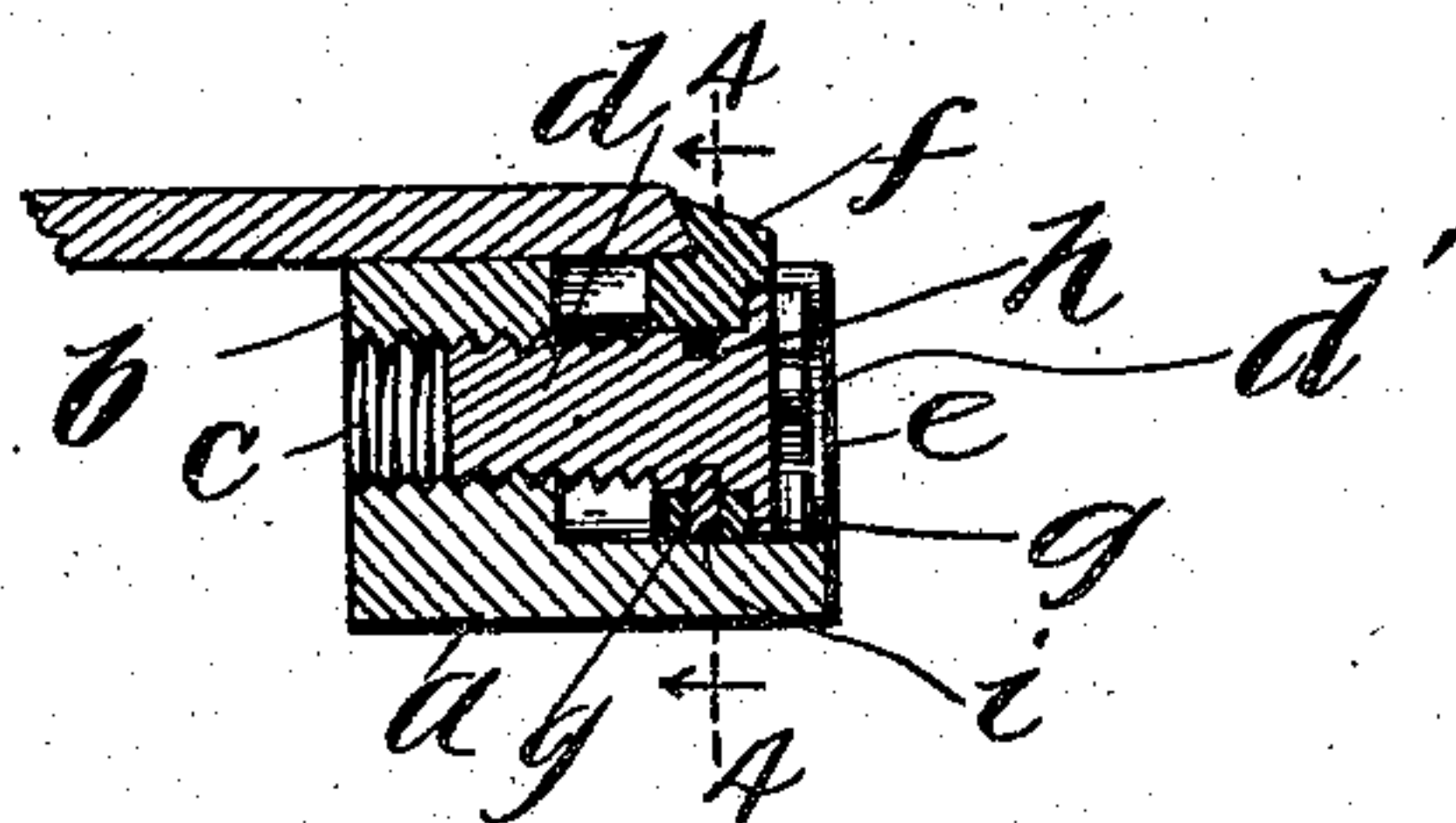


Fig. 5.

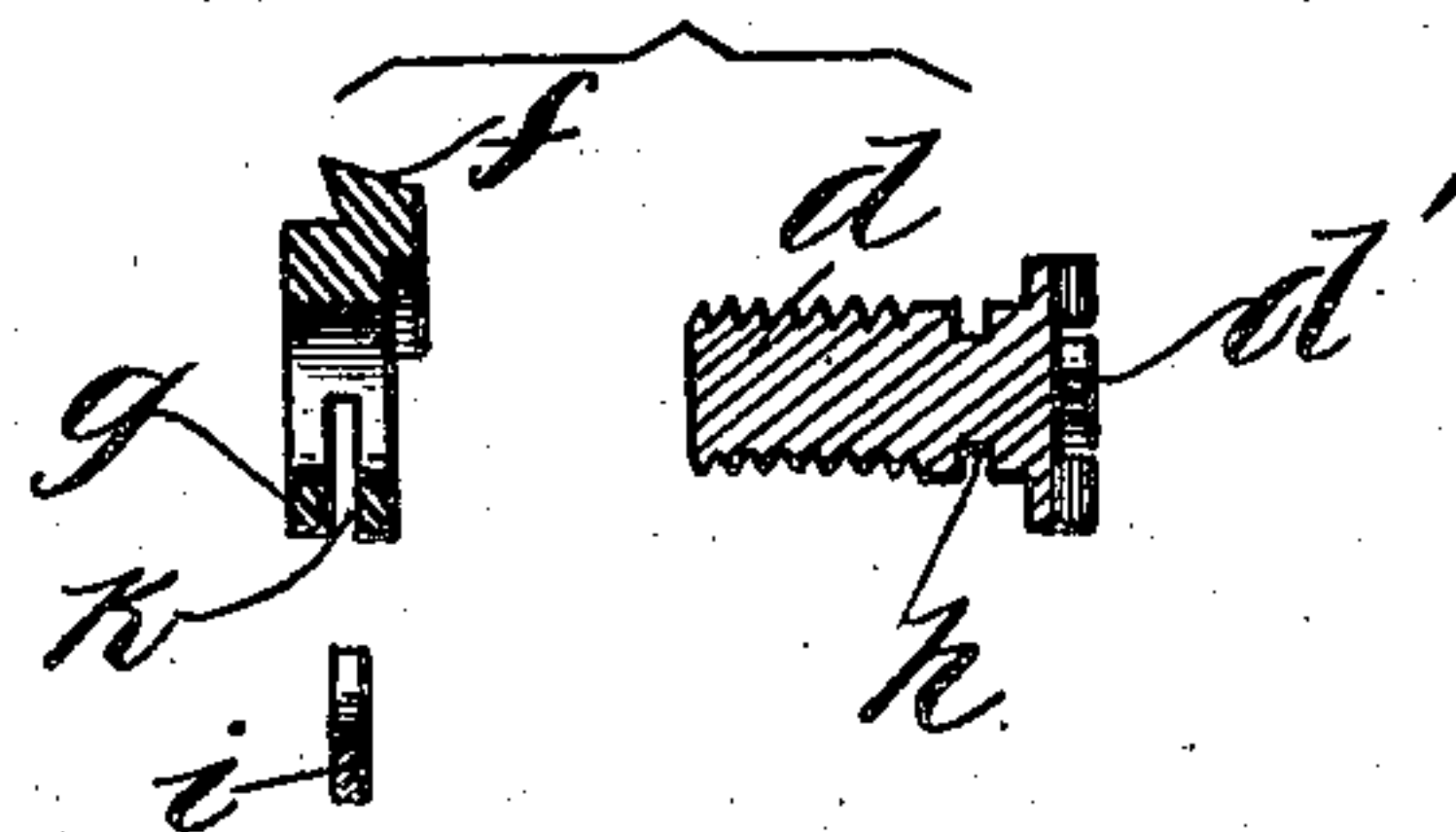
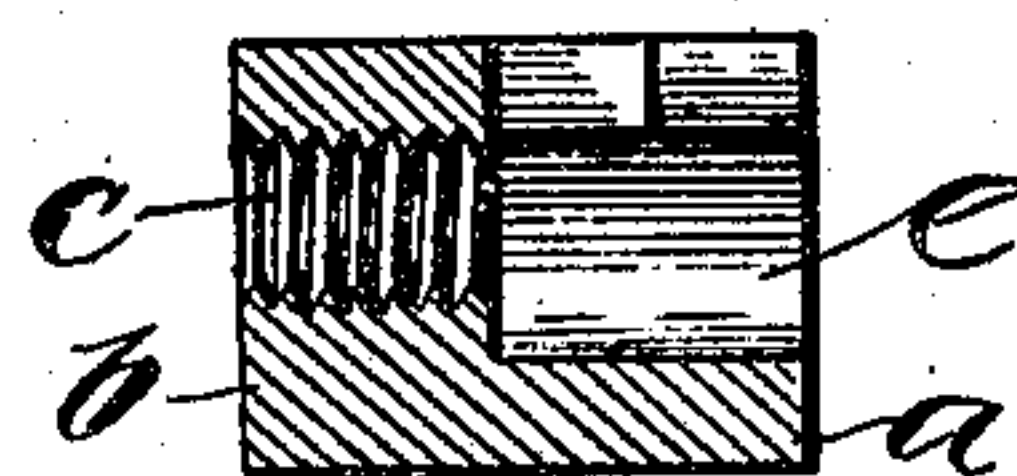


Fig. 4.



Fig. 6.



Witnesses:

W. A. Raubenschmidt  
L. E. Smith

Inventor:

William J. Knoll.

By *G. L. Cragg* *Atty*



# UNITED STATES PATENT OFFICE.

WILLIAM J. KNOLL, OF CHICAGO, ILLINOIS, ASSIGNOR TO H. B. ROUSE & COMPANY,  
OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## PRINTING-PLATE HOLDER.

No. 894,446.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed February 29, 1908. Serial No. 418,415.

*To all whom it may concern:*

Be it known that I, WILLIAM J. KNOLL, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Printing-Plate Holders, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to printing plate holders, and has for its object the provision of improved structural characteristics of such holders which will be more readily understood by reference to the accompanying drawing, showing the preferred embodiment of the invention, and which will be pointed out in the appended claims.

In the drawing—Figure 1 is a plan view showing a block equipped in accordance with my invention. Fig. 2 is an end view of the device shown in Fig. 1. Fig. 3 is a longitudinal vertical sectional view through the center of the device. Fig. 4 is a view on line 4 4 of Fig. 3. Fig. 5 shows certain elements of the mechanism as they appear in Fig. 3 but disassembled. Fig. 6 shows the balance of the mechanism as it appears in Fig. 3.

Like parts are indicated by similar characters of reference throughout the different figures.

I employ a block *a* whose end wall *b* is desirably made substantially thick, which end wall is provided with a threaded bore *c* adapted to receive the threaded rotatable adjusting shaft *d*. The opposite end of the block *a* is desirably provided with a recess *e* which conforms in shape to a partial cylinder, the recess being open at the top of the block *a* to permit of the union between the traveling jaw *f* upon the top of the block and the base *g* of said jaw located within the recess *e*. The base *g* of the jaw desirably conforms in shape to the curved portion of the recess *e* and desirably has a nice sliding fit in said curved portion of the recess *e* so that the traveling jaw *f* may have ample support, in the event of such formation of the base of the jaw that makes said base conform substantially throughout in shape to the curved portion of the recess *e*.

The threaded shaft *d* is in accordance with my invention, provided with an annular recess *h*, into which recess there extends

a projection or key *i* carried by the base *g* of the hook *f*. The shaft *d* is provided with a suitable formation desirably in the form of a radially recessed head *d*<sup>1</sup>, which head may be engaged by a suitable tool in order that the threaded shaft *d* may be rotated within the threaded bore *c*, thereby longitudinally to move the shaft with reference to the block *a*, the hook *f* and its base moving longitudinally with the shaft owing to the engagement of the projection *i* carried by the hook base with the annular groove *h*. In the preferred embodiment of the invention, the base of the hook *f* is provided with a circular opening through which the threaded shaft may freely pass; and, in the preferred embodiment of the invention, the projection or key *i* is separably associated with the base of the hook, this projection *i* being desirably a segment of a ring whose outer periphery conforms in shape to the bottom of the recess *e* and whose inner periphery conforms in shape to the bottom surface of the annular recess *h*. The bottom of the hook base is provided with a slot *k* for the purpose of receiving the ring segment *i*.

In assembling the parts, the ring segment *i* is out of place, so that the threaded shaft *d* may be passed through the circular opening in the base *g* of the hook *f* until the annular recess *h* is in the same plane with the slot *k*, whereupon the ring segment *i* is inserted into the slot *k* and enters the annular recess *h*, whereafter the parts thus united are inserted longitudinally within the recess *e*, whereupon the threaded shaft *d* may be engaged with the threaded bore *c* by rotation of said shaft. Any rotary movement of the parts thus associated will effect a longitudinal movement of the hook *f* with its base.

I am aware that I am not the first to devise a rotary threaded shaft which is in such engagement with a traveling jaw that a rotary movement of the shaft in either direction will effect a longitudinal movement of the jaw toward or from the plate which is to be clamped in position. I would state, however, that all devices of the prior art with which I am familiar, are cumbersome and costly in construction and difficult of assembly and disassembly. Many of the parts in the devices of the prior art require replacement, such replacement being secured only with great difficulty. In the device of my present in-



vention the parts are few, the cost is light, and the assemblage and disassemblage is simple.

It will be seen that in the preferred embodiment of the invention the projection or key is prevented from separation from its operative relation with the jaw by means of the block.

It will be seen that I have provided a printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection in separable relation with the traveling jaw serving to establish connection with the traveling jaw and the grooved portion of the shaft, said projection being prevented from separation from its operative relation with the jaw by means of the block.

Having thus described my invention, I claim as new and desire to secure by Letters Patent the following:—

1. A printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, a traveling jaw moving above the top of the block, an annular groove being provided in the threaded shaft, and a projection in the form of the segment of a ring in separable relation with the traveling jaw, serving to establish connection with the traveling jaw and the grooved portion of the shaft, said projection being prevented from separation from its operative relation with the jaw by means of the block, the lower portion of the jaw base being slotted to receive said projection.

2. A printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, a traveling jaw moving above the top of the block, an annular groove being provided in the threaded shaft, and a projection in the form of the segment of a ring in separable relation with the traveling jaw, serving to establish connection with the traveling jaw and the grooved portion of the shaft, said projection being prevented from separation from its operative relation with the jaw by means of the block.

3. A printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, said open recess at the top of the block permitting of

the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, and a key in separable relation with the traveling jaw and for establishing connection between the traveling jaw and the threaded shaft, said key being presented from separation from its operative relation with the jaw by means of the block.

4. A printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection in separable relation with the traveling jaw serving to establish connection with the traveling jaw and the grooved portion of the shaft, said projection being prevented from separation from its operative relation with the jaw by means of the block.

5. A printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection in separable relation with the base of the jaw establishing connection between the base of the jaw and the annular groove in the shaft.

6. A printing plate holder including a block having a recess therein open at the top of the block, an end wall provided with a threaded bore, a threaded operating shaft in engagement with said bore, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection establishing connection between the base of the jaw and the annular groove in the shaft.

7. A printing plate holder including a block having a recess therein open at the top of the block, a threaded operating shaft in threaded engagement with said block, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving



above the top of the block and in said recess, and a key in separable relation with the traveling jaw and for establishing connection between the traveling jaw and the threaded shaft, said key being prevented from separation from its operative relation with the jaw by means of the block.

8. A printing plate holder including a block having a recess therein open at the top of the block, a threaded operating shaft in threaded engagement with said block, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection in separable relation with the traveling jaw serving to establish connection with the traveling jaw and the grooved portion of the shaft, said projection being prevented from separation from its operative relation with the jaw by means of the block.

9. A printing plate holder including a block having a recess therein open at the top of the block, a threaded operating shaft in threaded engagement with said block, said open recess at the top of the block permit-

ting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection in separable relation with the base of the jaw establishing connection between the base of the jaw and the annular groove in the shaft.

10. A printing plate holder including a block having a recess therein open at the top of the block, a threaded operating shaft in threaded engagement with said block, said open recess at the top of the block permitting of the insertion of a shaft-rotating tool to enable said tool to operate the shaft from the top of the block, a traveling jaw moving above the top of the block and in said recess, an annular groove being provided in the threaded shaft, and a projection establishing connection between the base of the jaw and the annular groove in the shaft.

In witness whereof, I hereunto subscribe my name this 27th day of February A. D., 1908.

WILLIAM J. KNOLL.

Witnesses:

G. L. CRAGG,  
L. E. STROH.