

No. 670,842.

Patented Mar. 26, 1901.

N. A. COBB.  
PHOTOMICROGRAPHIC PLATE HOLDER.

(Application filed Sept. 18, 1899.)

(No Model.)

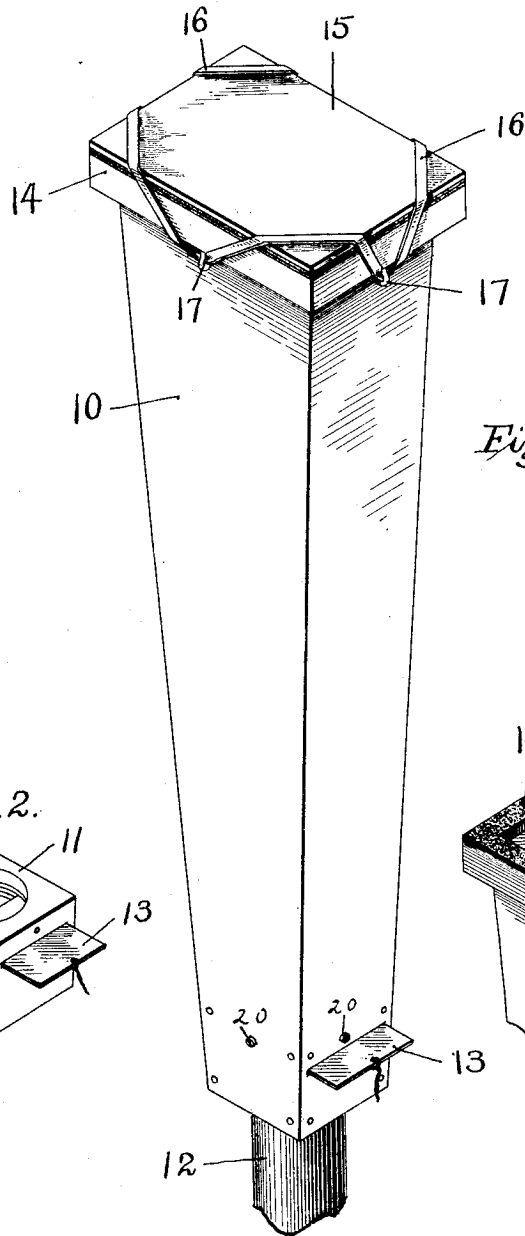


Fig. 1.

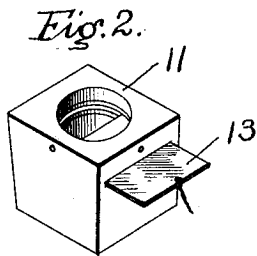


Fig. 2.

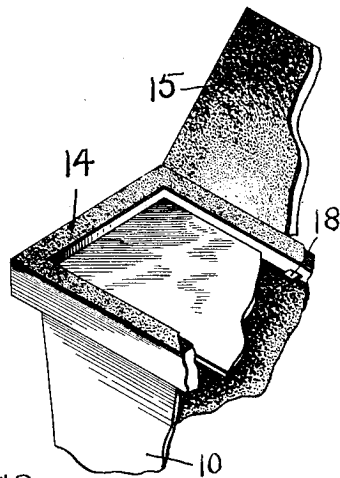


Fig. 3.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

NATHAN A. COBB, OF SYDNEY, NEW SOUTH WALES.

## PHOTOMICROGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 670,842, dated March 26, 1901.

Application filed September 18, 1899. Serial No. 730,790. (No model.)

*To all whom it may concern:*

Be it known that I, NATHAN A. COBB, a citizen of the United States, residing at Sydney, in the county of Cumberland, New South Wales, have invented a new and useful Photographic-Plate Holder for Microscopes, of which the following is a specification.

The object of my present invention is to provide a light, efficient, and inexpensive attachment which may be applied to the tube of a microscope, so that the microscope may be first focused and a photograph thereafter taken, as will be hereinafter described.

To this end my invention consists of the photographic-plate holder and the combinations thereof with the tube of the microscope, as hereinafter described, and more particularly pointed out in the claim at the end of this specification.

In the accompanying drawings, Figure 1 is perspective view of a plate-holder as the same is applied to a microscope-tube. Fig. 2 is a detail view of the end block or piece, and Fig. 3 is a detail broken-away view showing the cover of the plate-holder opened.

A plate-holder for microscopes constructed according to my invention comprises a tapering body portion having a socket at one end for fitting onto a microscope-tube and having a cover at its opposite end which may be opened for the insertion and removal of the desired plate.

To form a light-tight joint between the cover and the upper frame of the plate-holder, I preferably line these parts with velvet, and the tapering body portion of the plate-holder may also be lined with velvet or other dark-colored material.

Referring to the drawings and in detail, my plate-holder as herein illustrated comprises a tapering body portion 10. The body portion 10 may be made of pasteboard or similar light inexpensive material and may be formed in the shape of a frustum of a pyramid or cone. Secured in the lower end of the body portion 10 is an end piece or block 11. The end piece or block is provided with a central socket for engaging the tube of a microscope, as 12, and mounted in the block 11 and extending through the tapering body portion 10 is a slide 13. At its upper end the body portion 10 is provided with a top casing 14, and

fitting thereto and preferably hinged is a cover 15. The casing 14 and cover 15 are lined, preferably, with velvet, so that when the cover is shut down, as shown in Fig. 1, the cover will make a preferably light-tight joint with the casing 14. To hold down the cover 15, I may employ an elastic band, as 16, which may be held in place by hooks 17.

A photographic plate may be inserted in the end casing 14 and will be supported by lugs or blocks 18 therein, and the body portion of the plate-holder may be lined with velvet or other dark material.

In the use of a plate-holder as thus constructed a focusing screen or plate may first be put into the plate-holder and the microscope focused, so that an image will be formed substantially in the plane of the plate. The plate-holder may then be taken to the dark room and a photographic or sensitive plate substituted for the focusing-plate. The plate-holder may then be replaced on the tube of the microscope and the slide 13 opened and left open to make the desired exposure.

In some cases, in order to adapt the plate-holder to microscope-tubes which differ somewhat in diameter, the end piece 11 may be provided with set-screws, as 20, so that the plate-holder may be securely fastened to the tube, if desired.

By means of this construction it will be seen that I have provided an extremely light, simple, and inexpensive plate-holder for microscopes by means of which microscope photographs may be taken in a simple and inexpensive manner.

I am aware that many changes may be made in the construction of my plate-holder by those who are skilled in the art, and I do not wish, therefore, to be limited to the form or proportions which I have herein shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

As an article of manufacture, a plate-holder adapted to be directly connected to a microscope-tube, comprising a tapering body portion 10, a socket-piece 11 secured in the lower end thereof, and having a socket for engaging the tube of a microscope, a slide 13 mounted in the socket-piece 11, a casing 14 at the upper end of the body portion, said casing hav-

ing supporting-ledges for directly and inter-  
changeably supporting a focusing-screen or  
photographic plates, a hinged cover 15, a plu-  
rality of hooks 17, and an elastic band 16 for  
5 engaging said hooks to hold the cover shut,  
substantially as described.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing  
witnesses.

NATHAN A. COBB.

Witnesses:

LOUIS W. SOUTHGATE,  
PHILIP W. SOUTHGATE.