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G. A. LEONARD.
ATTACHMENT FOR T-SQUARES.
APPLICATION FILED APR. 10, 1907.

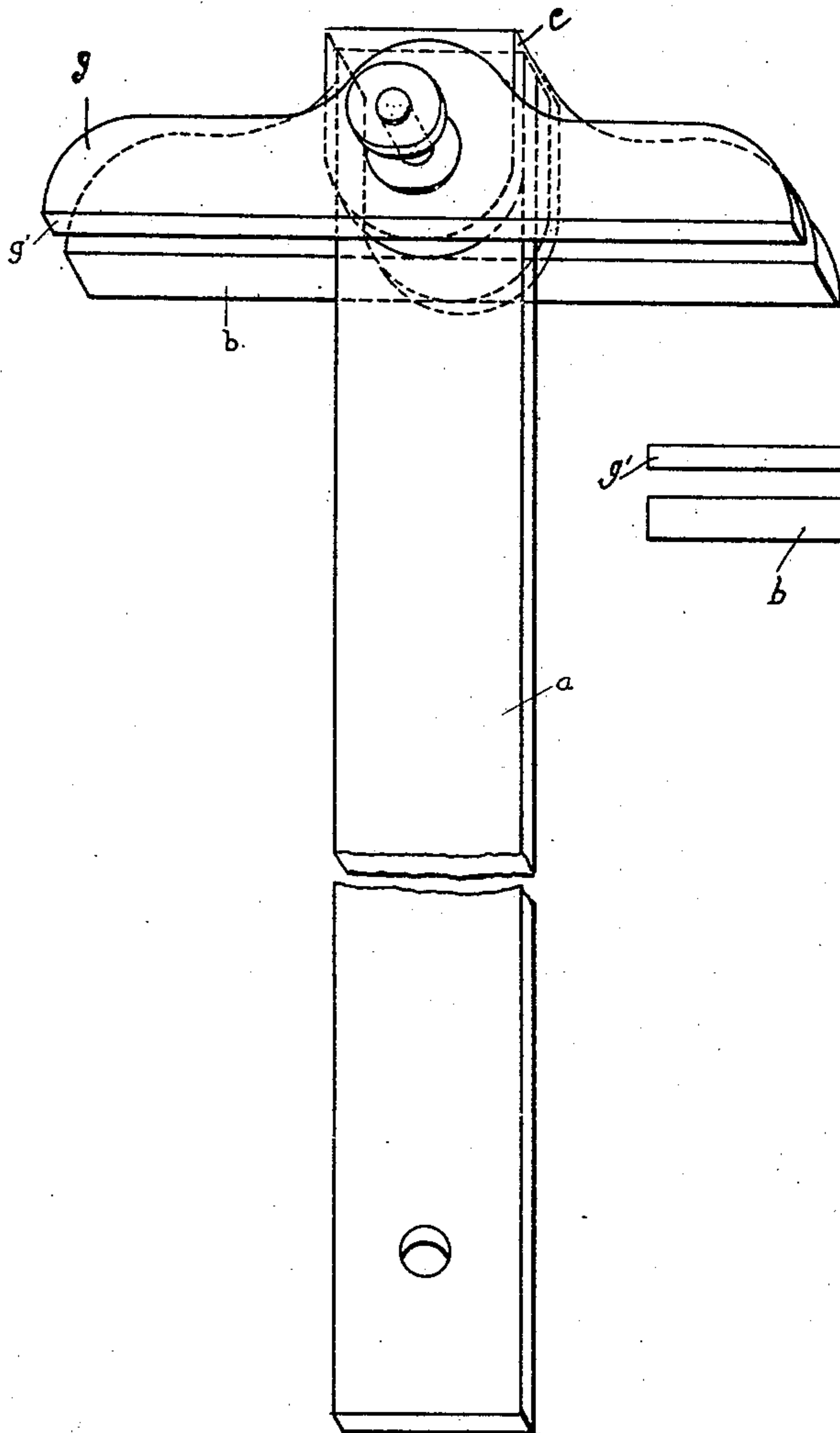


Fig. 1.

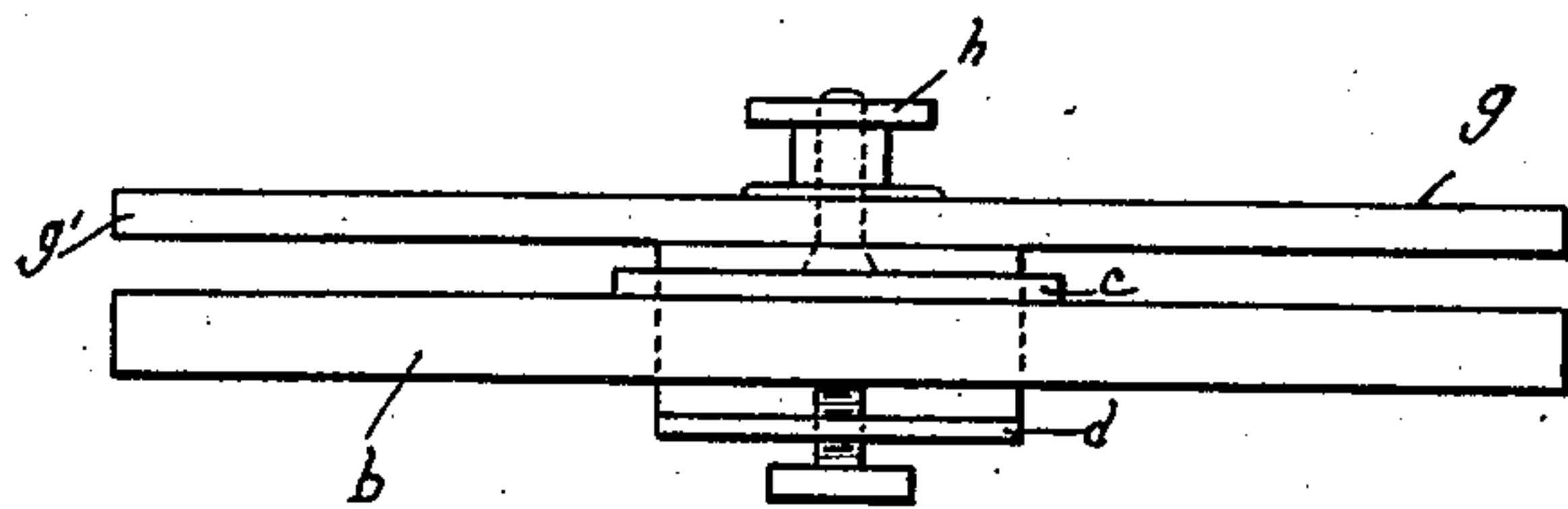


Fig. 2.

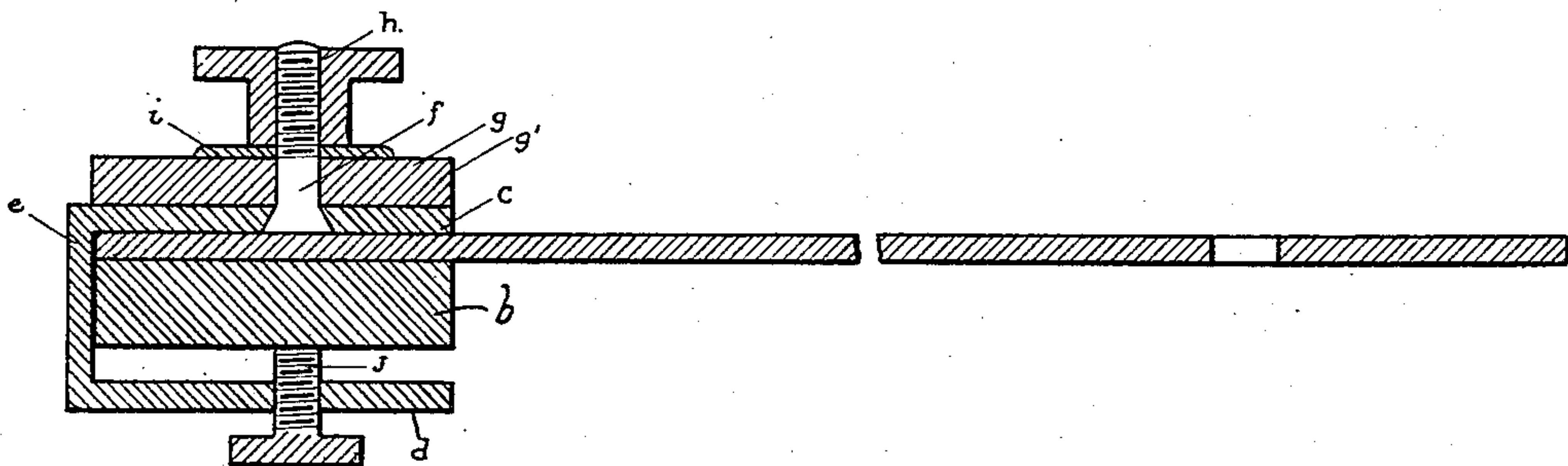


Fig. 3.

WITNESSES:

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ATTACHMENT FOR T-SQUARES.

No. 870,372.

Specification of Letters Patent.

Patented Nov. 5, 1907.

Application filed April 10, 1907. Serial No. 367,360½.

To all whom it may concern:

Be it known that I, GASPAR A. LEONARD, a citizen of the United States, and a resident of Boston, Massachusetts, county of Suffolk, have invented certain new and useful Improvements in Attachments for T-Squares, of which the following is a specification.

The invention relates to an attachment for T-squares such as are used in drafting and its object is to provide a device by means of which any of the usual forms of T-squares having a fixed head may be quickly and conveniently provided with a swivel head.

T-squares such as are commonly used in the drafting room consist essentially of a head having a straight edge or face adapted to engage the edge of the drafting board and a thin flat blade secured upon the upper side of the head and extending at right angles to the face of the head. That type of T-squares known as swivel head T-squares are also provided with a second head mounted upon the upper side of the fixed head so that it may be turned and clamped in position with its straight edge or face at any angle to the edge of the blade.

Since different sizes and types of T-squares are required for the convenient and expeditious execution of drawings of varying size and character a drafting equipment should include a comparatively large number of T-squares. Not only is a T-square having only a fixed head the best adapted for the more general class of work but the cost of the swivel head T-square is comparatively large so that the necessity for the latter type of T-squares in an equipment adds materially to its expense.

By the present invention the necessity for swivel head T-squares in a drafting equipment is eliminated and a device provided by which a swivel head may be attached to any of the T-squares having fixed heads only whenever a T-square having a swivel head is required. When the swivel head is no longer required the attachment may be removed and thus the T-square be restored to its original condition. Since the same attachment may be used upon T-squares of different sizes, the number of T-squares required is reduced to a minimum and since the more expensive swivel head T-squares are not required, the expense of an equipment is materially reduced.

An attachment made in accordance with the present invention comprises a support provided with means for detachably securing it to the head of a T-square and a head mounted upon the support so that it may be turned and secured in position with its face at any desired angle to the edge of the T-square blade. The support and securing devices as well as the devices for securing the swivel head in adjusted position may be of any suitable and desirable form. I prefer however to provide the support with two arms projecting in substantially parallel planes from a connecting web and adapted to embrace the head of a T-square. A screw

threaded stud is secured in one of the arms of the support and upon this stud is mounted a head which may be turned about the stud and clamped in any desired position by means of a clamping nut mounted on the stud. One or more clamping screws are mounted in the other arm of the support and are arranged to engage the head of the T-square to which the attachment is applied and clamp the head between the ends of the screws and the opposite arm of the support.

The preferred form of my invention is shown in the accompanying drawings, in which

Figure 1 is a perspective view of a T-square with a swivel head attachment embodying my invention secured thereto. Fig. 2 is a front elevation looking toward the head of the T-square in Fig. 1; and Fig. 3 is a sectional view longitudinally of the blade of the T-square.

In the drawings the T-square illustrated is provided with a blade *a* and a head *b*, the blade being secured to the upper side of the head *b* in the usual manner.

The swivel head attachment which is shown secured to the head of the T-square comprises a substantially U-shaped support provided with arms *c d* which project in parallel planes from the connecting web *e*. A stud *f* is secured in the arm *c* so that it projects from the outer face of the arm. Upon this stud a head *g* is mounted. This head may be of any suitable shape and size and is provided with a straight edge or face *g'* adapted to engage the edge of a drafting board. The outer end of the stud *f* is screw threaded and is engaged by a clamping nut *h* provided with a milled head so that the nut may be conveniently manipulated. A washer or plate *i* may be interposed between the upper side of the swivel head *g* and the nut *h* and the head may be firmly clamped in any adjusted position by screwing the nut down upon the plate *i*.

The two arms *c d* of the U-shaped support are so spaced that the head of the T-square may be readily introduced between these arms and the lower arm *d* is provided with a clamping screw *j* adapted to engage the under face of the head. When the support is properly positioned upon the head of the T-square the screw *j* is forced against the head of the T-square thus clamping the head and blade between the screw and the inner face of the arm *c*.

The front edge of the arm *c* is formed in a curve, the center of which is at the axis of the stud *f* so that this edge will not project beyond the face of the head *g* whatever the adjusted position of the head.

Having described one form of device in which my invention may be embodied, what I claim is:—

1. An attachment for T-squares comprising a support, means for detachably securing the support to the head of a T-square, a swivel head having a straight edge for engaging the edge of a drafting board mounted on the support, and means for securing the swivel head in position

with its edge at any desired angle with the edge of the T-square head, substantially as described.

2. An attachment for T-squares comprising a support provided with arms adapted to embrace the head of a
5 T-square, means for securing the head of a T-square between said arms, a head mounted to turn on one of said arms, and means for securing the head in adjusted position, substantially as described.
3. An attachment for T-squares comprising a U-shaped
10 support the arms of which are adapted to embrace the

head of a T-square, a screw threaded stud projecting from one of said arms, a clamping screw mounted in the other arm, a head mounted to turn on the stud, and a clamping nut on the stud, substantially as described.

In witness whereof, I have hereunto set my hand.

GASPAR A. LEONARD.

In the presence of—

GEO. N. GODDARD,

KATHARINE A. DUGAN.