

J. RIIKONEN.  
STRAIGHT EDGE.

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Patented Nov. 7, 1911.

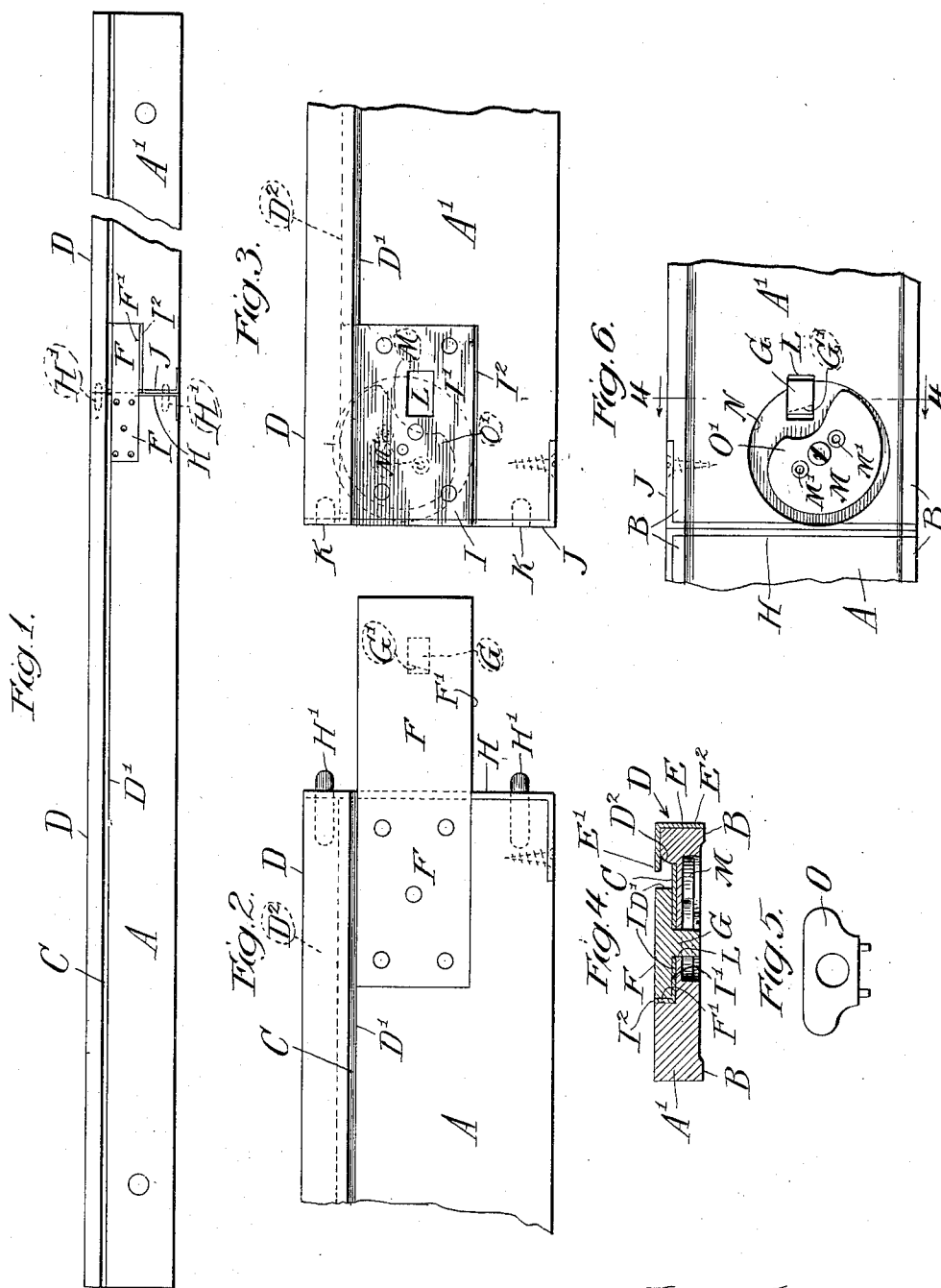


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

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# UNITED STATES PATENT OFFICE.

JOHN RIIKONEN, OF CHICAGO, ILLINOIS.

STRAIGHT-EDGE.

1,007,801.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Application filed May 20, 1909. Serial No. 497,234.

*To all whom it may concern:*

Be it known that I, JOHN RIIKONEN, a subject of the Czar of Russia, residing in the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Straight-Edges, of which the following is a specification.

The object of my invention is to provide a straight edge of several parts for the particular use of paper hangers the parts of which can be separated and thereby easily transported by the user from place to place on trolley cars and other conveyances for passengers.

The manner in which I accomplish my object is described in the following specifications and illustrated in the accompanying drawings in which:

Figure 1 is a top plan, the two main parts being locked together ready for use. Fig. 2 is a top plan showing the male part of the locking joint. Fig. 3 is a top plan showing the female part of the locking joint. Fig. 4 is a cross section on the line 4—4 Fig. 6. Fig. 5 is a vertical elevation of a key required to lock the joint. Fig. 6 is an underneath plan of the joint showing the locking cam.

In the drawings A and A<sup>1</sup> are the two main parts of the straight edge made preferably of wood, and of any desired length, thickness and width. The underside of these parts are recessed the full length, and in width the recesses are adapted to leave a narrow margin B along each edge. This form of the underside is adapted to reduce the contact of that side of the straight edge with the paper on which it is placed to the margins B, whereby the firmest pressure can be applied to the paper and contact with paste and other matter on the paper be reduced to a minimum. In the top side of the parts A and A<sup>1</sup> is a channel C parallel with and close to the outer edge D. This channel extends the full length of the main parts and is adapted to form a guide for a cutting knife used with the straight edge for trimming the paper. The inside wall D<sup>1</sup> of this channel is vertical. The outside wall D<sup>2</sup> is beveled outwardly as shown in Fig. 4. Covering the edge D from end to end and secured thereto is a metal angle plate E. One edge of this plate extends over the beveled wall of the channel C and forms a lip E<sup>1</sup> shown in Fig. 4 under which

a part of the knife used is engaged as it is moved along the channel, the knife blade being thereby held close to the face E<sup>2</sup> of the plate E. In the top side of the part A is a recess corresponding in depth with the channel C into which it extends. Secured in this recess is a metallic tongue F. One edge of which is in line with the vertical wall D<sup>1</sup> of the channel C. Projecting from the underside of this tongue and near its outer end is a fixed rectangular bolt G having a transverse notch G<sup>1</sup> as indicated by the dotted lines in Figs. 2 and 6. Secured to the end of the part A and shaped to correspond with the tongue F and channel C is a metallic plate H. Extending longitudinally through this plate and into the part A are two threaded bores in which dowel pins H<sup>1</sup> are secured. In the top side of the part A<sup>1</sup> is a recess I. The base and vertical wall of which is reinforced with a metal plate I<sup>1</sup> which in width and depth corresponds with the recess in which the tongue F is secured in the part A, and in length it is adapted to receive the tongue F. Secured on the end of the part A<sup>1</sup> and formed to correspond with the recess I is a metallic plate J. Extending longitudinally through this plate and into the part A<sup>1</sup> are two bores K adapted to receive the dowel pins H<sup>1</sup>. Extending through the central part of the plate I<sup>1</sup> is a rectangular aperture L adapted for the insertion therein of the bolt G. Pivotally supported on the underside of the plate I<sup>1</sup> is a cam M having apertures M<sup>1</sup>. This cam is free to be operated in an aperture N in the part A<sup>1</sup> as shown in Figs. 4 and 6.

When the several parts are constructed as described and illustrated they are connected and locked together as follows: The separate parts A and A<sup>1</sup> are held in the positions shown in Figs. 2 and 3 with the end of the bolt G on the face of the plate I. The dowel pins H<sup>1</sup> are inserted in the bores K. The parts A and A<sup>1</sup> are then brought into a straight line, the inserted dowel pins acting as pivots. The bolt G thereby enters the aperture L. When the parts are thus joined the teats on the key O are inserted in the holes M<sup>1</sup> in the cam M and the cam thereby revolved into engagement with the bolt G. In this locking movement the part O<sup>1</sup> of the cam enters the notch G<sup>1</sup>. As the cam is turned its periphery presses

against the base of the notch  $G^1$  and thereby forces the metallic ends H and J together. The same movement of the cam presses the edge  $F^1$  of the tongue against the vertical edge  $I^2$  of the plate I, and the gradual increase of thickness of the cam acting on the side of the notch  $G^1$  draws bolt G and tongue F against the face of the plate  $I^1$  and locks the parts firmly together. The pressure of the cam in the three specified directions brings every connecting part solidly together, the two parts A and  $A^1$  being thereby brought into a straight line every time they are connected and held there till released by the use of the key. It is obvious that both edges can be used either with angle plates or otherwise.

What I claim and desire to secure by Letters Patent is:

In a tool of the kind described, the combination of two main parts, a tongue and socket adapted to form a fixed joint of said parts, with a cam pivotally supported on said socket, said cam being adapted to be operated with a key and to force said tongue and socket together in three directions, longitudinally, transversely, and vertically, thereby locking said joint and said parts as a complete and correct straight edge as described.

JOHN RIIKONEN.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."