No. 683,115. Patented Sept. 24, 1901.

D. GILLIOM.

STRAIGHT EDGE.

(Application filed Jan. 9, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

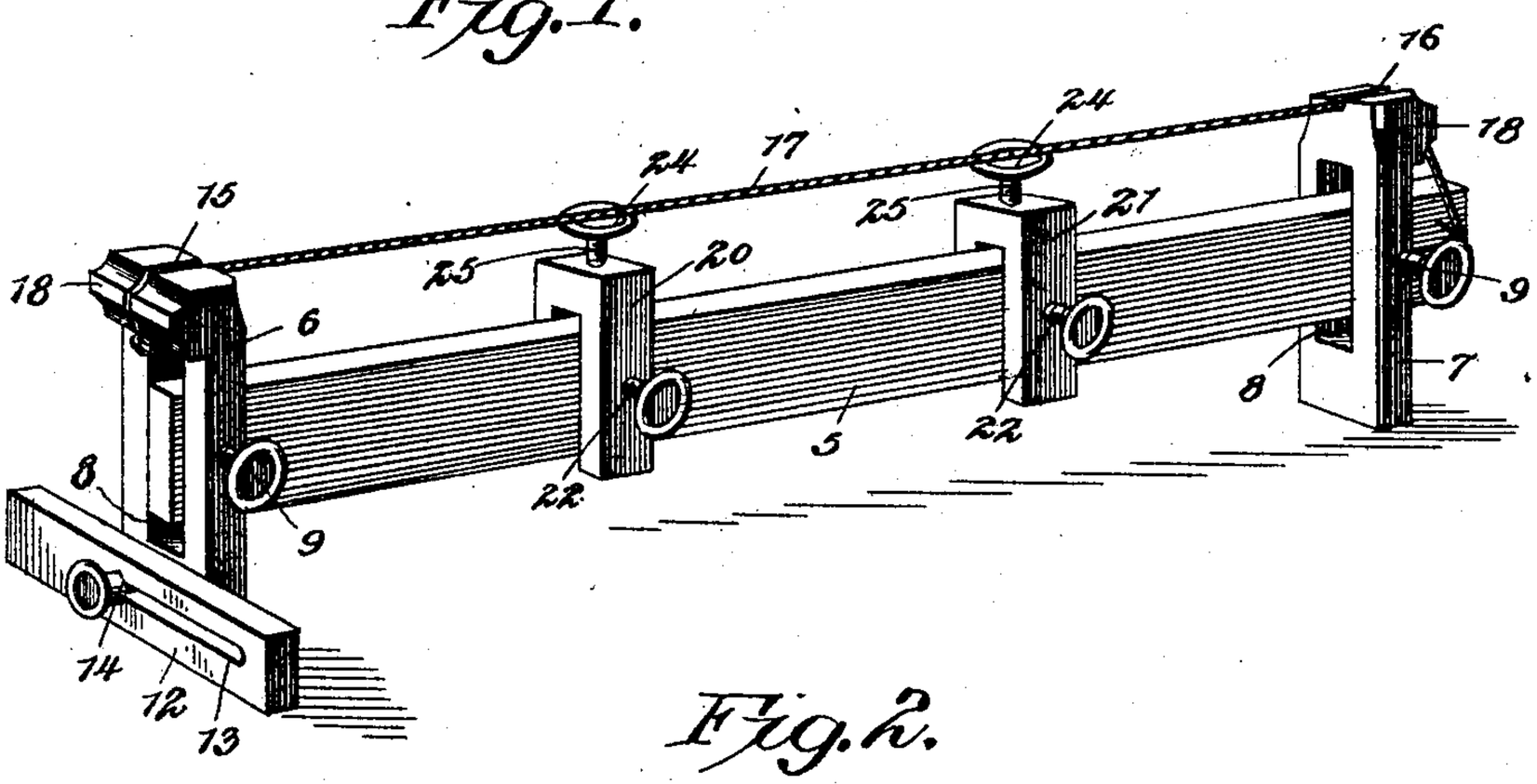


Fig. 2.

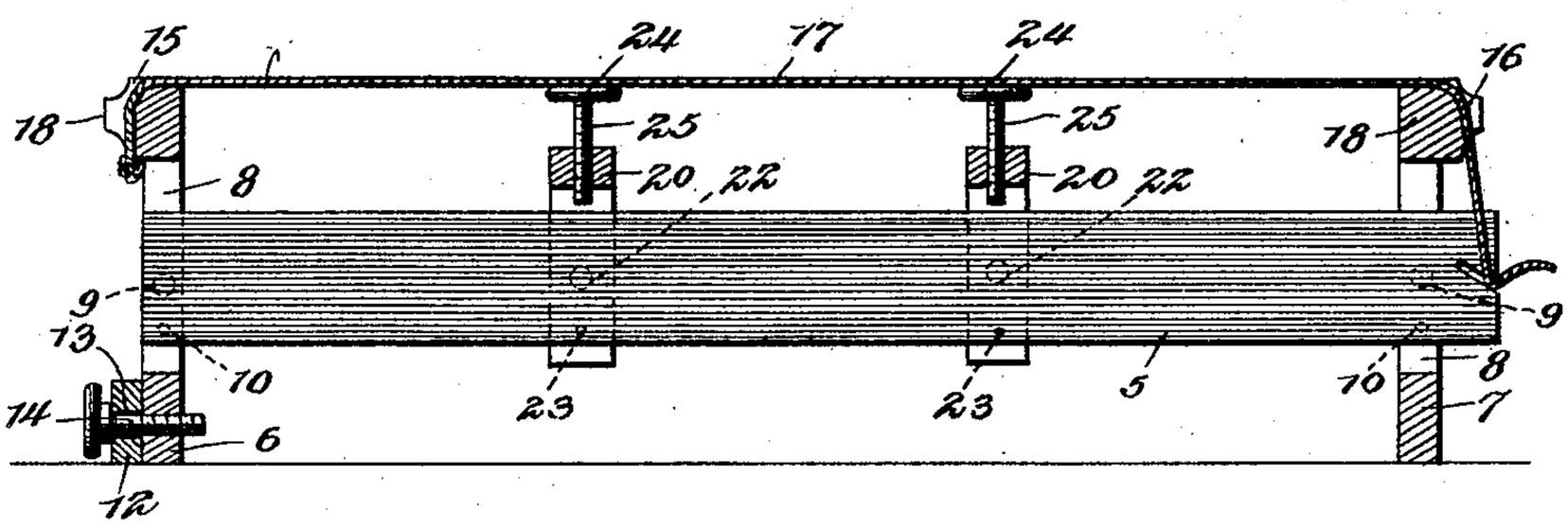
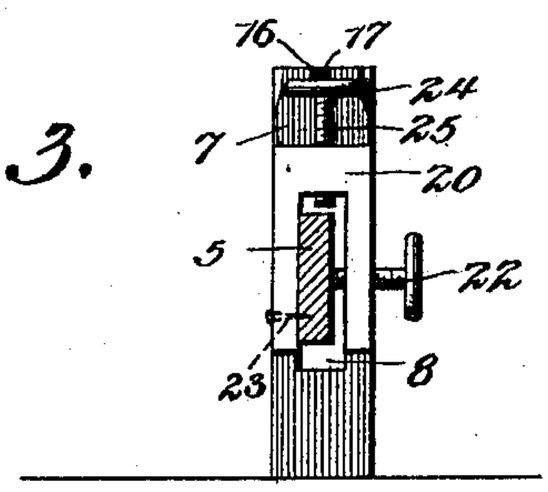


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

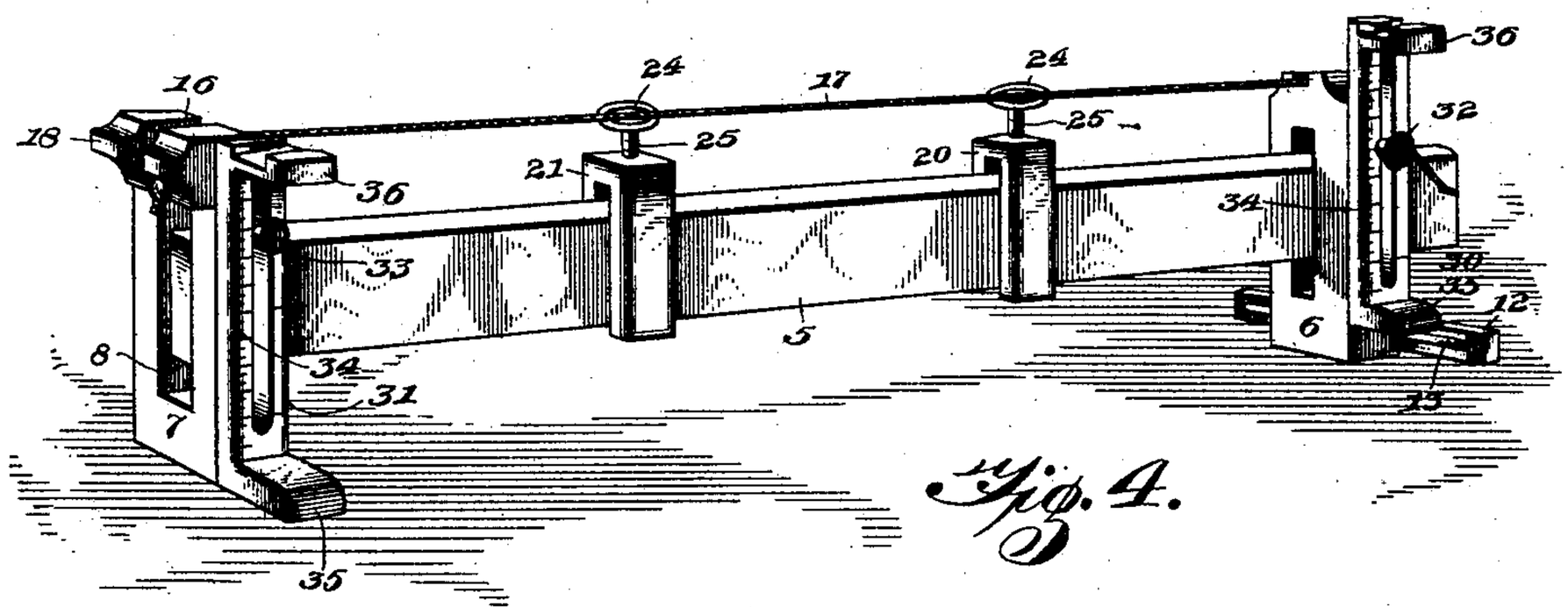

Fig. 4.

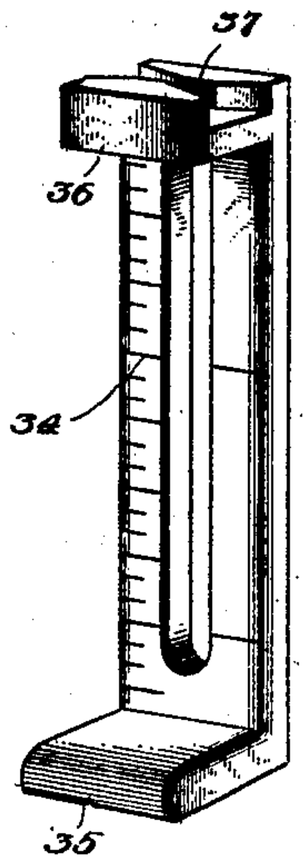

Fig. 5.

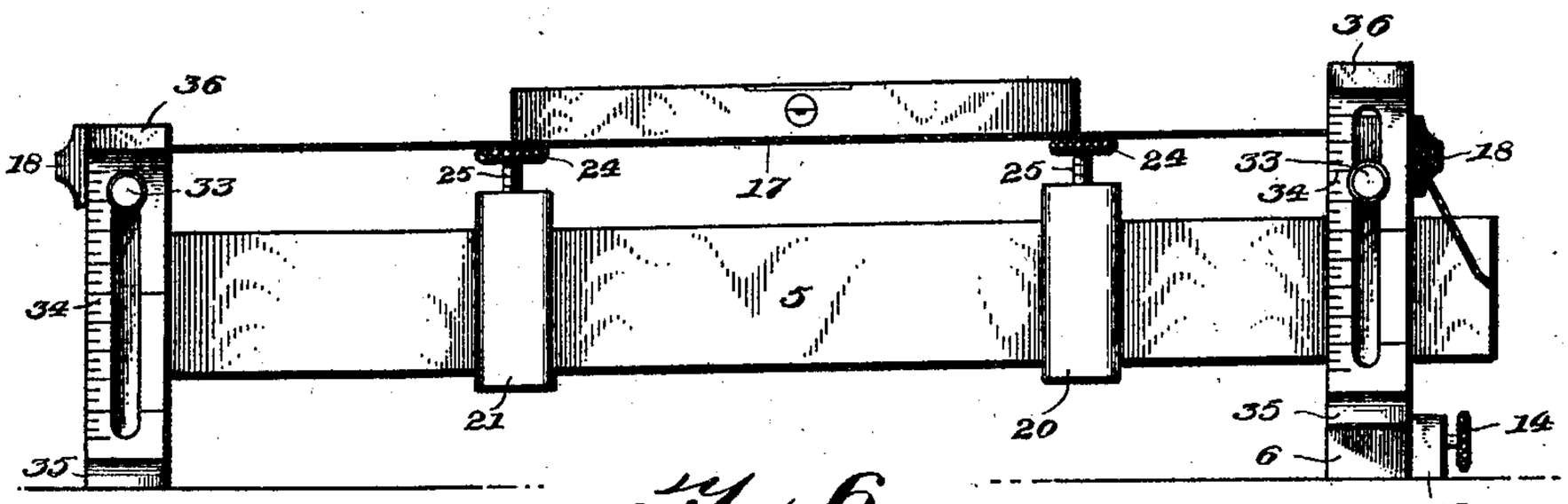

Fig. 6.

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UNITED STATES PATENT OFFICE.

DANIEL GILLIOM, OF PERRY, OKLAHOMA TERRITORY.

STRAIGHT-EDGE.

SPECIFICATION forming part of Letters Patent No. 683,115, dated September 24, 1901.

Application filed January 9, 1901. Serial No. 42,695. (No model.)

To all whom it may concern:

Be it known that I, DANIEL GILLIOM, a citizen of the United States, residing at Perry, in the county of Noble, Territory of Oklahoma, have invented a new and useful Straight-Edge, of which the following is a specification.

This invention relates to straight-edges; and it has for its object to provide a device of this nature wherein the bearing-faces may be adjusted accurately to lie in a common plane and may be separated or moved toward each other to conform to various conditions of use, a further object of the invention being to provide a construction which may be set up and taken down at will and may be adjusted without the use of any delicate instruments.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the complete device with the parts in their positions to which they are brought for adjustment. Fig. 2 is a longitudinal vertical section with the supporting-beam in elevation. Fig. 3 is a transverse section through the supporting-beam and showing in elevation one of the clamps that carry the active faces of the device. Fig. 4 is a perspective view showing a modification. Fig. 5 is a detail perspective view of the adjustable plate. Fig. 6 is a side elevation of the device as shown by Fig. 4, showing a spirit-level applied thereto.

Referring now to the drawings, 5 represents a supporting-beam, at each end of which is adjustably mounted a block, (shown at 6 and 7,) these blocks having each a slot 8 therethrough of such dimensions as to permit the block to be easily slid longitudinally of the beam 5 and also to permit of the block being moved to some extent transversely of the beam, said blocks extending both above and below the beam 5, as illustrated. To hold the blocks in their proper positions relatively to the beam, set-screws 9 are engaged with threaded perforations in the blocks opening into the slots thereof, these set-screws being adapted to impinge against the beam, and projecting inwardly from the opposite sides of the slots from the set-screws are pins 10, which by entering the beam prevent pivotal movement of the blocks upon their set-screws.

To support the straight-edge in upright position, a foot 12 is provided for the block 6, this foot being in the form of a short beam having a longitudinal slot 13, and through this slot is passed a set-screw 14, which is engaged with the block 6, this set-screw when screwed up acting to clamp the foot against the block and when unscrewed permitting of rotatable adjustment of the foot to lie transversely of the block, as shown in Fig. 1, so that when the device is stood upon the blocks it will not tilt or fall over.

In the upper ends of the blocks 6 and 7 and in the plane of the beam 5 there are cut alining slots 15 and 16, and in these slots there is adapted to be engaged a line 17, the blocks having heads 18 projecting from their outer faces, and one end of the line is knotted to lie against the under side of the head of the block 6, the other end of the line being engaged with a slot or kerf in the opposite end of the beam 5. This is a simple arrangement of the line, that permits of ready application and removal and of placing the line easily under proper tension.

The bearing-surfaces or active faces of the straight-edge are carried by blocks or slides 20 and 21, which are bifurcated and disposed to straddle the beam 5, upon which they are adjustable both longitudinally and vertically, and are held in their adjusted positions by means of set-screws 22, engaged with one side thereof and disposed to impinge against the beam 5, the bifurcations opposite to the set-screws having pins 23, which engage the opposite face of the beam and prevent pivotal movement of the slides.

The active faces of the device are formed by the flat heads 24 of screws 25, which are engaged with threaded perforations in the upper ends of the slides and which heads are moved vertically when their screws are adjusted.

The operation of the device is as follows: The foot 12 being turned to the position shown in Fig. 1 the slides are adjusted to correspond to the work in hand and the line is put in place, as shown, the device being then turned on its side, so that any sagging of the line will not be in the direction of the beam 5, but

in a plane parallel with the upper edge of the latter. The screws 25 are then adjusted to bring the surfaces of their heads into light contact with the line, and inasmuch as the line is under such tension as to cause it to lie straight the faces of the screw-heads will lie in a common plane and may be then used for the ordinary purposes of the straight-edge.

In Figs. 4, 5, and 6 of the drawings there is shown an attachment for the straight-edge in the form of an adjustable plate. There are two plates 30 and 31 used, each having a longitudinal slot, through which is passed a set-screw 32 and 33, respectively, whereby the plates may be held adjusted at the proper elevations. The plates have graduations 34 marked thereon indicating fractions of inches or any other unit of measurement. At the lower end of each plate is a foot 35, which when the plate is in lowered position forms an extended base-support to prevent overturning of the device, and at the upper end of the plate is a laterally-projecting head 36, having a transverse slot 37. Supposing that a rise of one foot in twelve is to be determined, the posts are placed twelve feet apart, a spirit-level is placed, as shown in Fig. 6, to bring the device to a level, and one of the plates is raised until its scale indicates one foot. By squinting through the slots 37 the inclination may be taken.

What is claimed is—

1. A device of the class described comprising a beam having blocks adjustably mounted thereon and adapted to receive and support a line, slides mounted upon the beam between the blocks, bearing members adjustably engaged with the slides for movement into contact with the line, said slides having means for holding them against movement, and supplemental line-supports slidably mounted on the blocks and adapted to receive and support the line.

2. A device of the class described comprising a beam having blocks adjustably mounted thereon and adapted to receive and support a line, slides mounted upon the beam between the blocks, and bearing members adjustably engaged with the slides for movement into contact with the line, said slides having means for holding them against movement.

3. A device of the class described comprising a beam having blocks adjustably connected therewith and adapted to receive and support a line, a foot pivotally connected with one of the blocks for movement into position to hold the device erect, slides disposed upon the beam intermediate of the blocks, and screws engaged with the slides and having flattened heads, said screws being adapted for adjustment to contact their heads with the line.

4. A device of the class described comprising a beam, blocks upon the beam and adapted to support a line, slides upon the beam, bearing members adjustably mounted upon the beam for movement into contact with the line, and supplemental line-supports slidably mounted on the blocks and adapted to receive and support the line.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DANIEL GILLIOM.

Witnesses:
W. H. KIRCHNER,
J. B. LATE.