

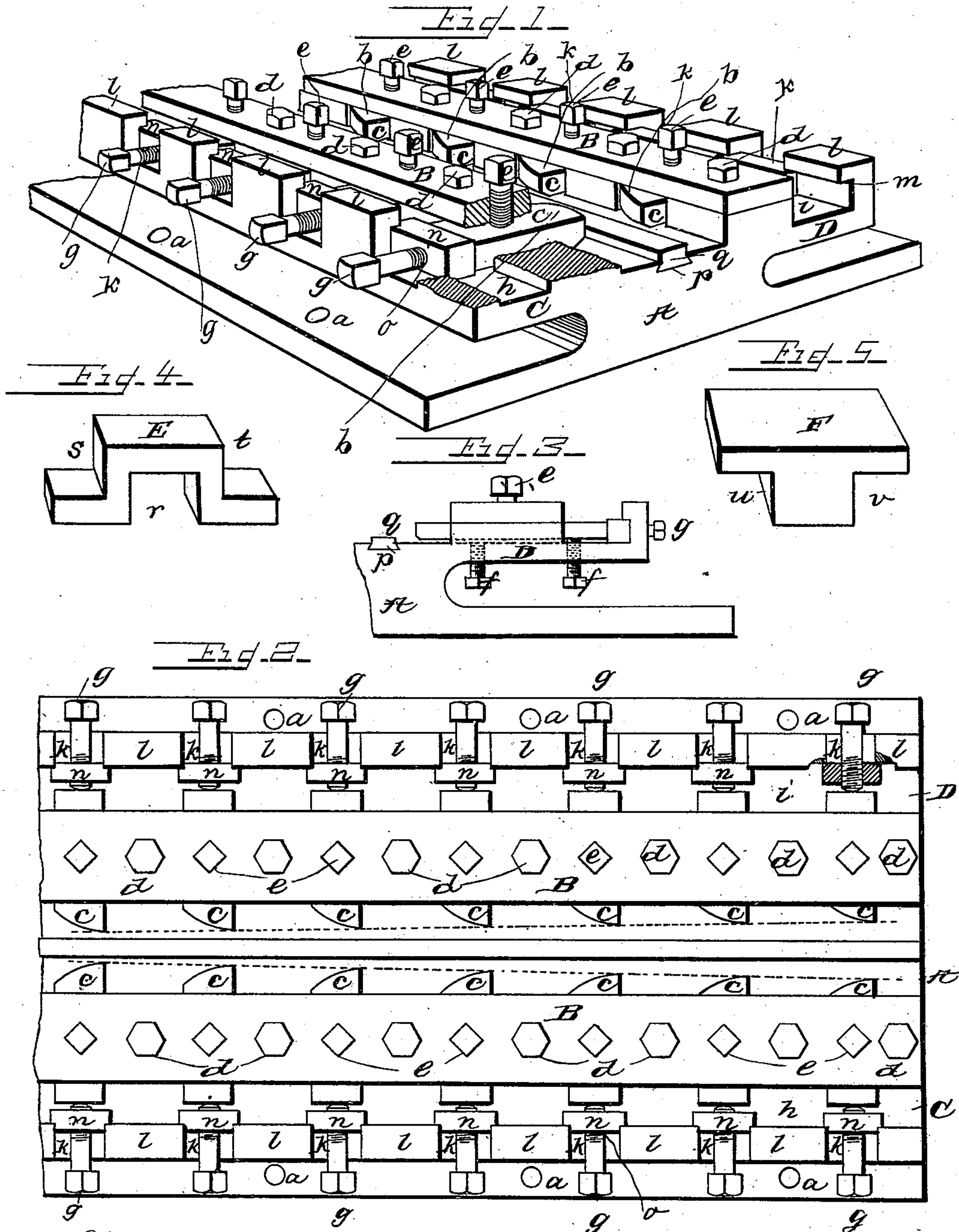
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2 Sheets—Sheet 1.

C. H. MYERS.
ATTACHMENT FOR METAL PLANERS.

No. 446,074.

Patented Feb. 10, 1891.



Witnesses.
S. Whitaker.
Edwin S. Clarkson

Inventor.
Charles H. Myers
By Johnston, Reinhold & Dyne
Attorneys

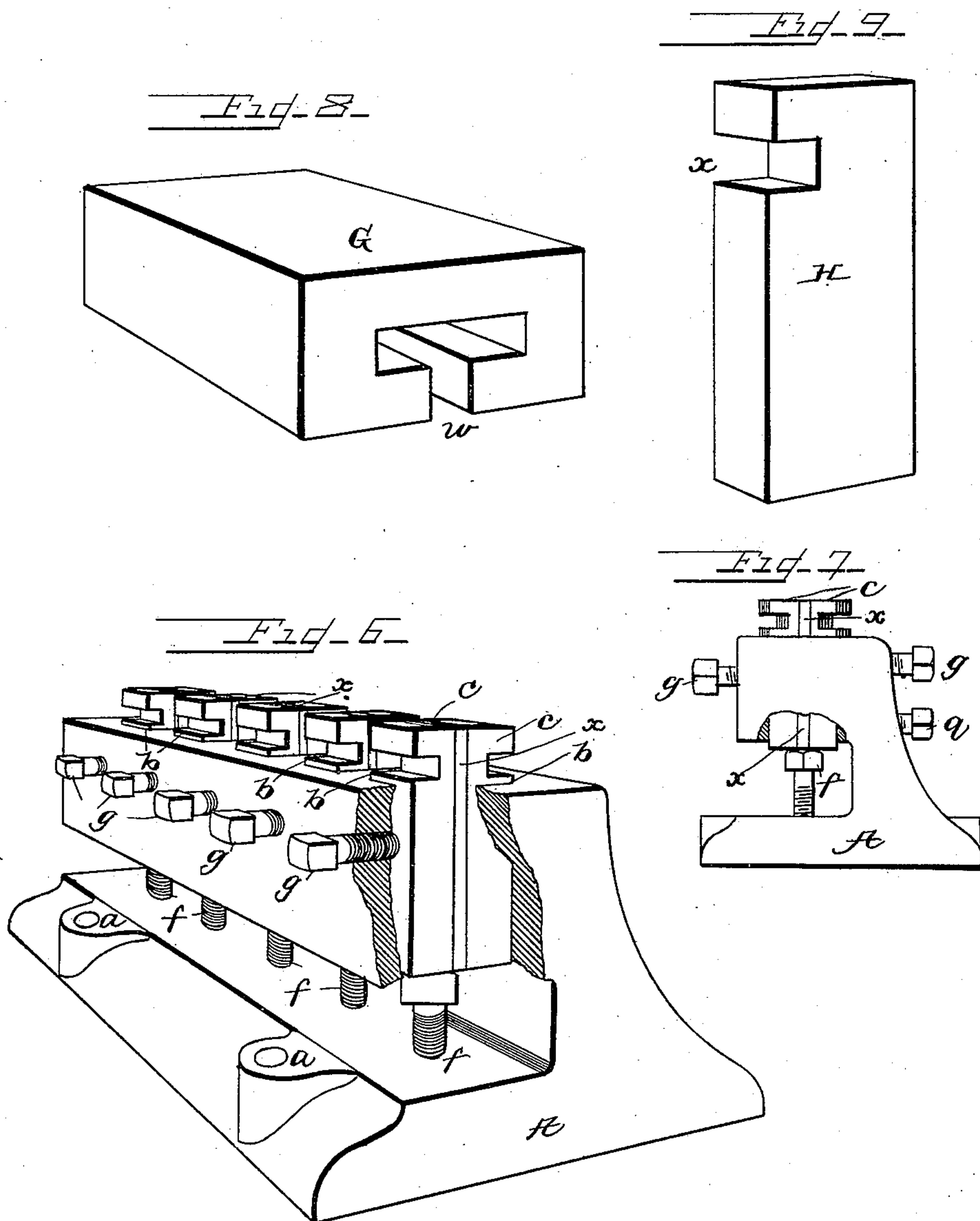
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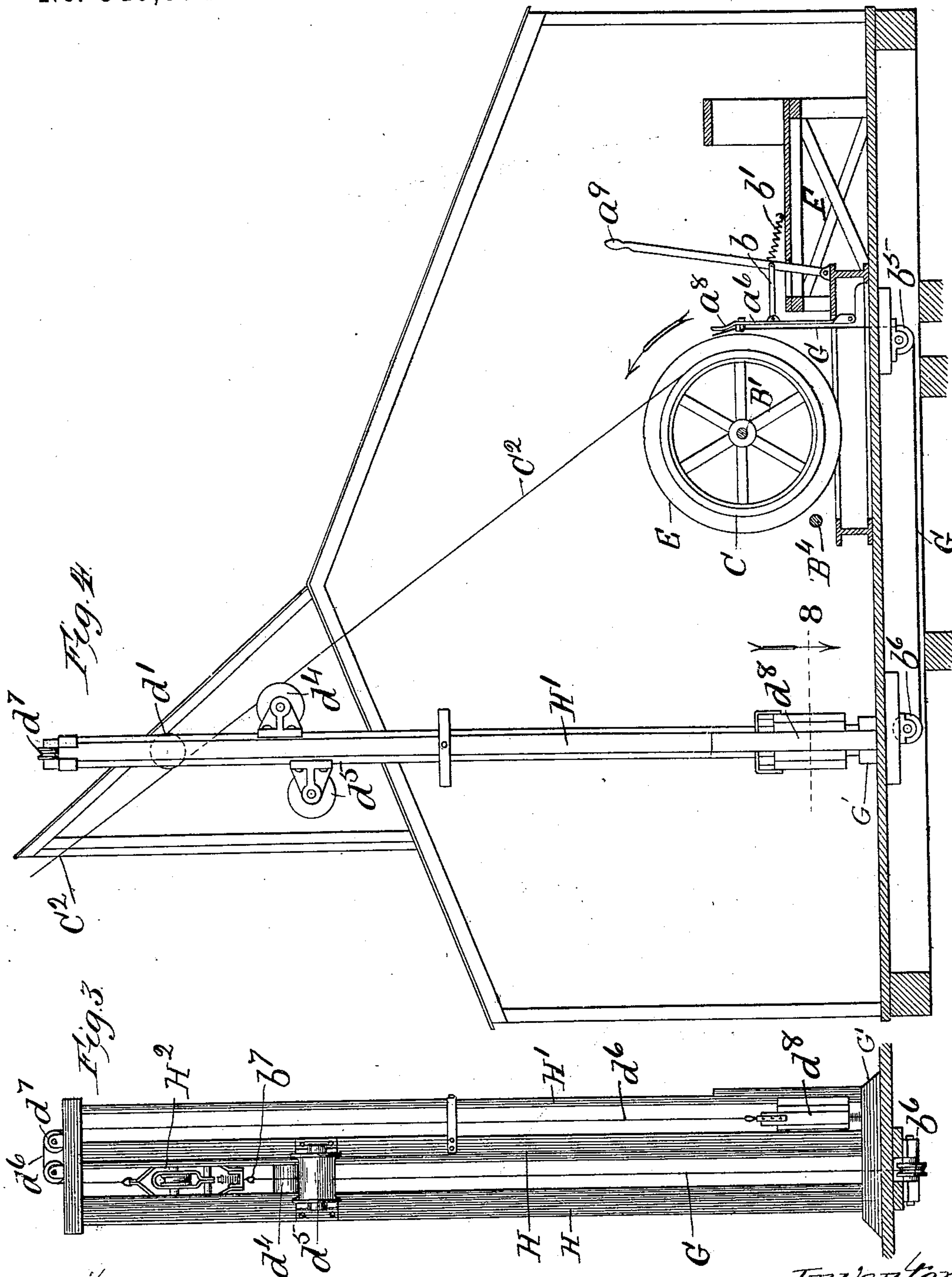
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4 Sheets—Sheet 3.

A. M. MULLINIX.
ATTACHMENT FOR CABLE WAY DUMPS.

No. 546,074.

Patented Sept. 10, 1895.



Witnesses:

Chas. E. Gaylord,
Lute J. Alter.

Inventor:

Arthur M. Mullinix,
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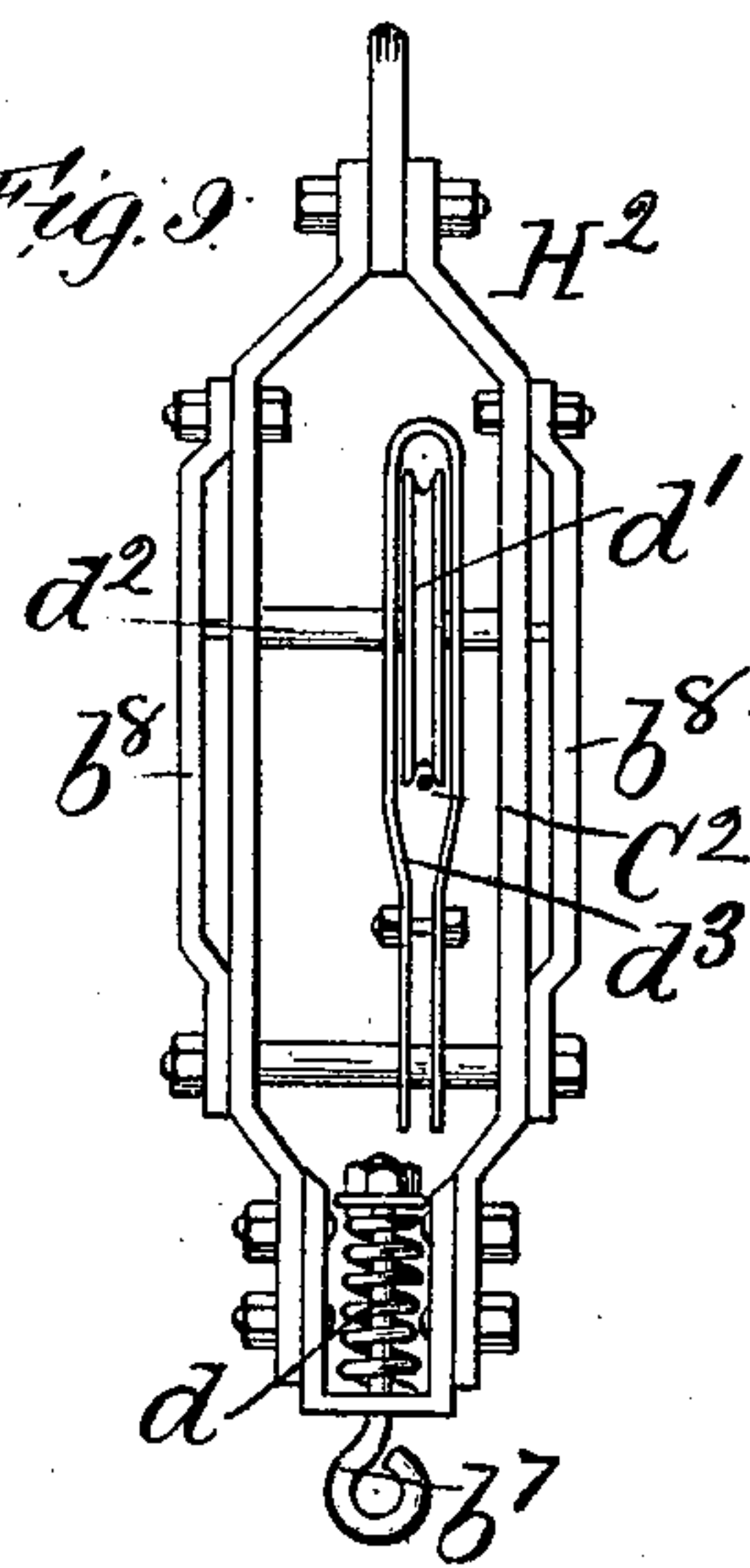
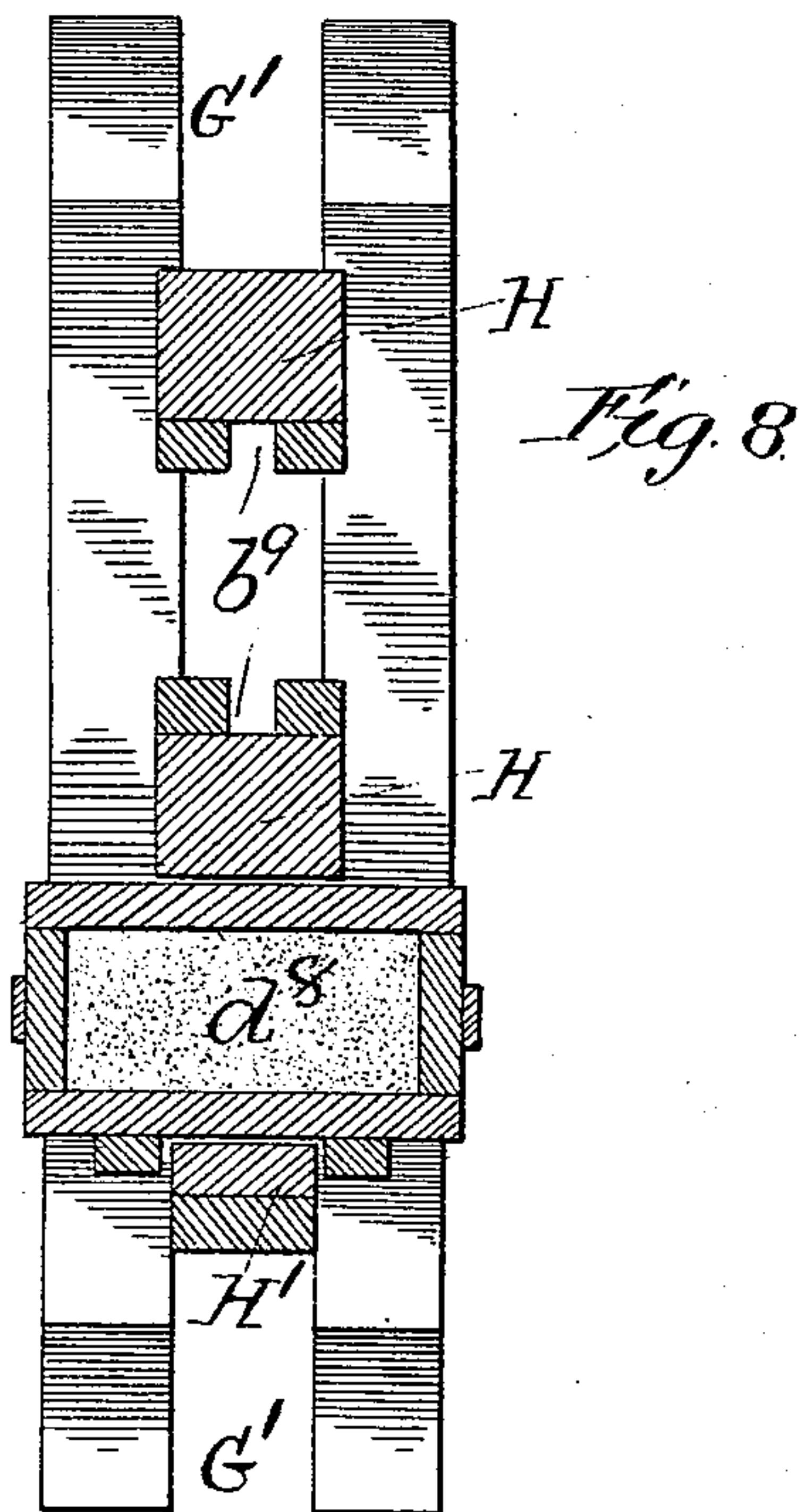
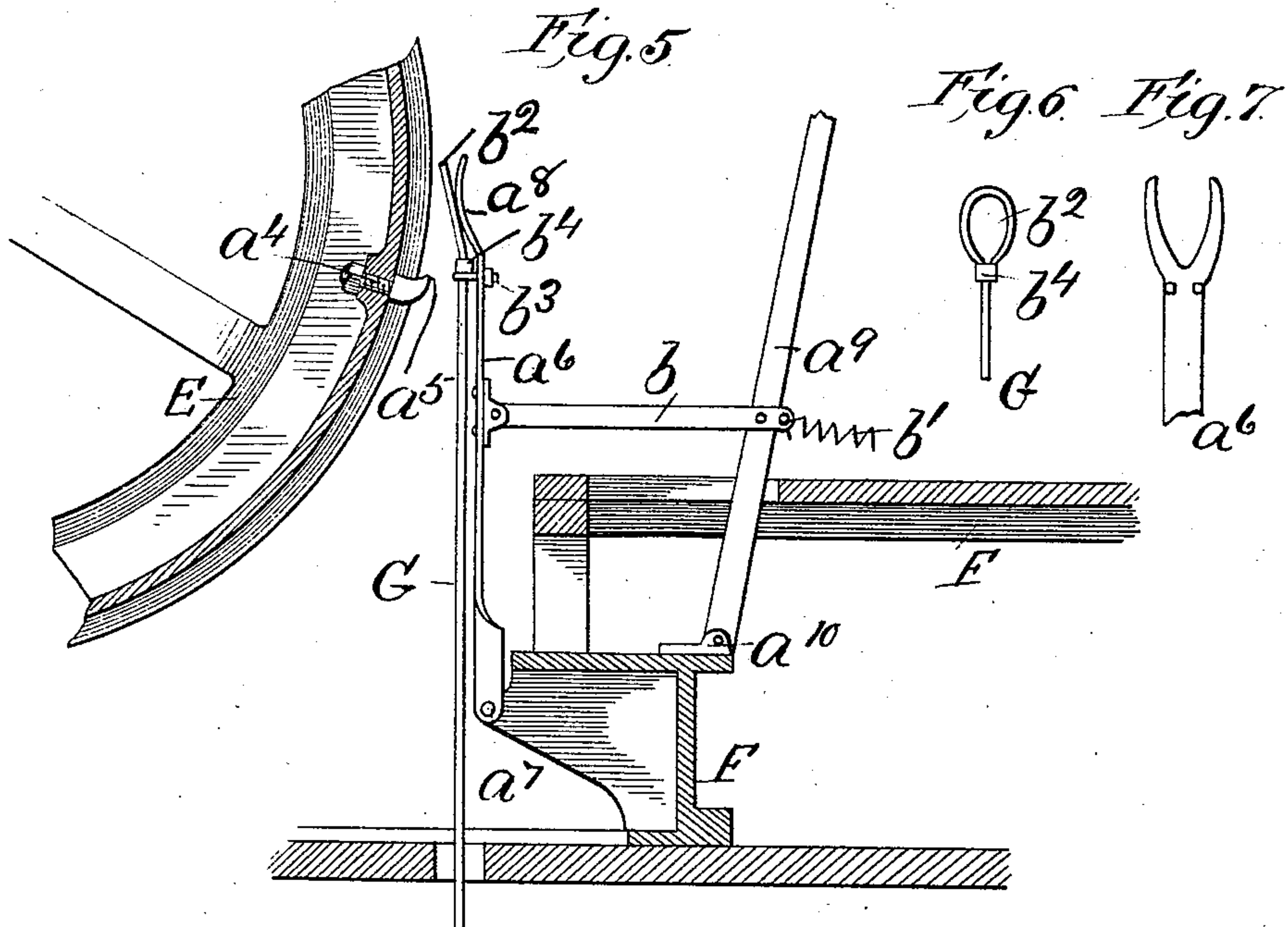
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A. M. MULLINIX.
ATTACHMENT FOR CABLE WAY DUMPS.

No. 546,074.

Patented Sept. 10, 1895.



Witnesses:
E. S. Gaylord,
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Inventor:
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UNITED STATES PATENT OFFICE.

CHARLES H. MYERS, OF PHELPS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
THE KEYSTONE MANUFACTURING COMPANY, OF BUFFALO, NEW YORK.

ATTACHMENT FOR METAL-PLANERS.

SPECIFICATION forming part of Letters Patent No. 446,074, dated February 10, 1891.

Application filed June 21, 1890. Serial No. 358,362. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. MYERS, a citizen of the United States, residing at Phelps, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Attachments for Metal-Planers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to machinery for planing, shaping, and slotting metal, and has for its object the construction of an attachment for holding cutting-tools, and is constructed to be secured to the movable or reciprocating bed of the class of machinery specified.

The invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a perspective of my invention; Fig. 2, a plan; Fig. 3, an end view of one side or one-half of the device shown in Figs. 1 and 2; Fig. 4, an enlarged perspective of a piece of metal after having been planed or shaped; Fig. 5, an enlarged end view of a T-shaped piece of metal; Fig. 6, a perspective of a modification in the form of the attachment; Fig. 7, an end view on a reduced scale; Fig. 8, a perspective of a piece of metal with a T-shaped groove in it, and Fig. 9 a similar view of a piece of metal with a rectangular slot in one of its edges.

Reference being had to the drawings and the letters thereon, A indicates a cast-metal frame, which is provided with bolt-holes *a* for securing it to the reciprocating bed of a planing, shaping, or slotting machine. On each side of the frame is a series of recesses *b* to receive cutters *c*, which are graduated so that each cutter from the entering end of the frame projects a little farther than the cutter preceding it, so that the work will be distributed over the entire length of the frame A and its cutters *c*. The cutters are securely held in their respective recesses by a clamping-plate B over each series, which is attached to the frame A by bolts *d*, passing through the plates and engaging with the frame, and the cutters are adjusted to any proper vertical alignment

by screw-bolts *e*, passing through and engaging with the plates B and bearing upon the cutters, and by the screw-bolts *f*, projecting through the lateral extensions C D of the frame and from the lower side thereof. Their horizontal alignment and adjustment are effected by screw-bolts *g*, bearing upon the outer end of the cutters.

In the extensions C D are formed longitudinal grooves *h i* and slots *k*, which are equal in width to the width of the cutters and form passages for the withdrawal of the cutters for the purpose of sharpening or renewal. The lugs *l* on the outer edges of the extensions C D are provided with projections *m*, under which the screw-threaded blocks *n* are held against vertical displacement. The screw-bolts *g* pass through and engage with the threaded apertures *o* in the blocks *n* and bear upon the cutters, as shown in Figs. 1 and 2.

In the center of the frame is a dovetailed groove *p*, in which is inserted a guide *q* for centering and steadying the article to be wrought upon. This guide may be of various configurations and interchangeable to suit various kinds of articles. The guide shown is designed for use in planing an article such as E, (shown in Fig. 4,) in which there is a square or right-angled central opening *r* on the under side, which engages with the guide while the right-angled portions *s t* are being planed. For some forms the guide *q* is removed and a projection on the article run in the groove *p*.

F in Fig. 5 indicates a T-shaped piece of metal, in which the right-angled portions *w v* have been planed.

In the use of my attachment the article to be planed is secured to the usual cross-piece of the planer to which the cutting-tool is ordinarily attached and in line with the cutters in the attachment or frame secured to the planer-bed, and the entire work of planing done during one movement of the planer-bed by the cutting of the graduated cutters.

In Figs. 6 and 7 is shown a modification, in which the cutters are of a form to cut or finish a T-shaped slot *w* such as shown in the piece G in Fig. 8 when both sides of the cutters are used, or a rectangular slot *x* such as shown in piece H in Fig. 9 when only one

side of the cutters is used. The cutters *c* are adjusted horizontally by screw-bolts *g* and vertically by bolt *f*, bearing upon the under side of a pair of cutters.

5 The width of the slot cut may be increased by placing a liner *x* between the cutter in a manner well known to the skillful mechanic, and cutters of various shapes may be employed within the scope and spirit of my invention.

10 Having thus fully described my invention, what I claim is—

1. An attachment for metal-planers, consisting of a cast-metal frame constructed to be detachably secured to a planer-bed and provided with a series of recesses, and graduated cutters in said recesses, in combination with devices for adjusting the cutters vertically and horizontally, and a guide for engaging the article wrought upon, substantially as described.

2. An attachment for metal-planers, consisting of a cast-metal frame provided with lateral extensions having recesses, longitudinal grooves and slots, graduated cutters in said recesses, and a detachable covering-plate, in combination with screw-threaded blocks in said grooves and screws for adjusting the cutters, substantially as described.

3. An attachment for metal-planers, consisting of a cast-metal frame constructed to be detachably secured to a planer-bed and

provided with series of recesses on opposite sides of the frame, and graduated cutters in said recesses, in combination with screws for adjusting the cutters vertically and horizontally, and a guide between the opposite cutters for engaging the article wrought upon, substantially as described.

4. An attachment for metal-planers, consisting of a cast-metal frame provided with series of recesses on opposite sides of the frame, graduated cutters in said recesses, a detachable covering-plate, and a longitudinal guide between the series of cutters, in combination with screws for adjusting the cutters, substantially as described.

5. An attachment for metal-planers, consisting of a cast-metal frame provided with series of oppositely-arranged recesses, graduated cutters in said recesses, and an interchangeable longitudinal guide between the cutters, in combination with horizontal screws and blocks in grooves in the extensions of the frame for adjusting the cutters horizontally, and screws for adjusting them vertically, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. MYERS.

Witnesses:

D. C. REINOHL,

JAMES J. JOHNSTON.