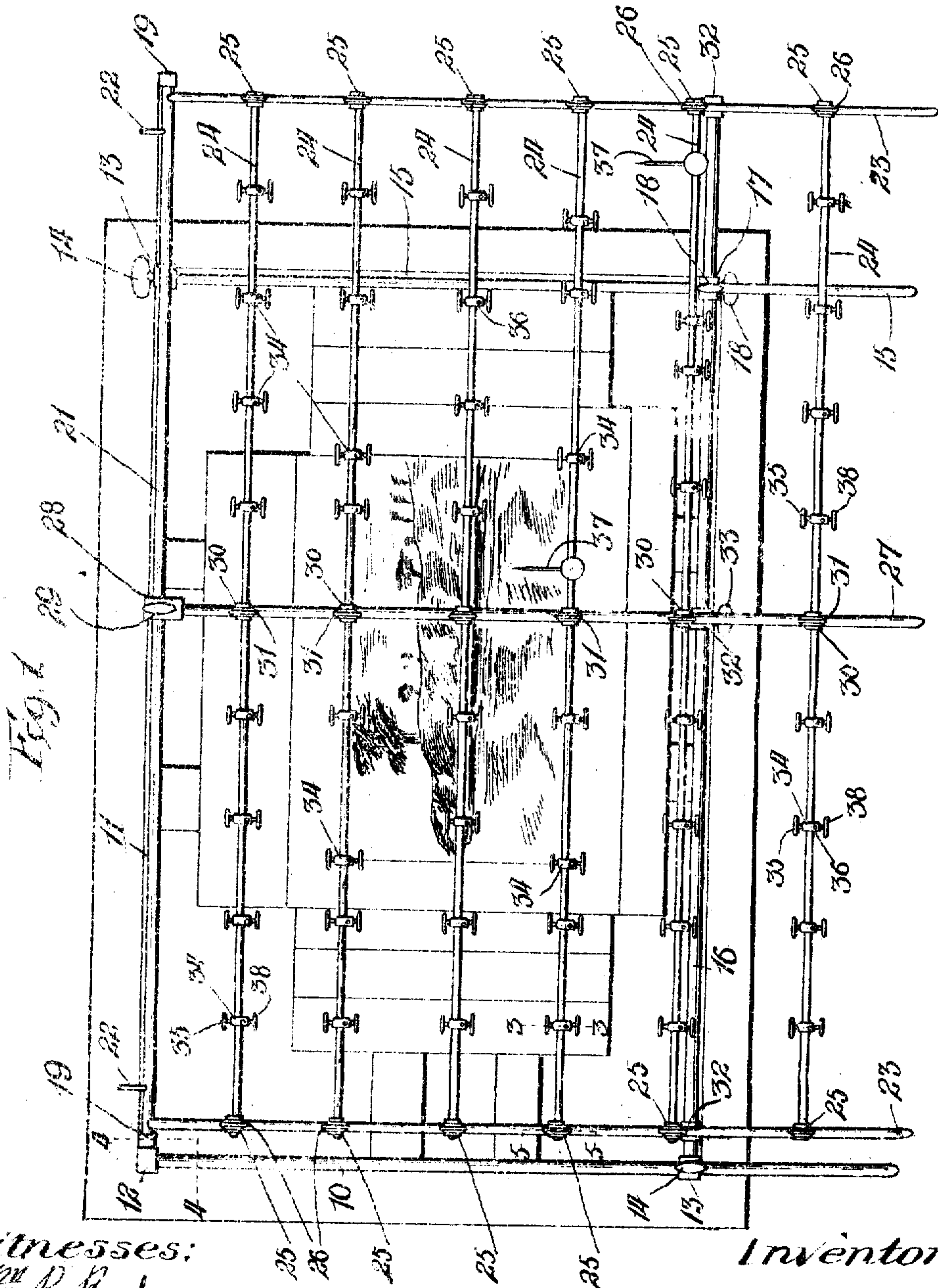


W. A. HOWE.  
 REGISTERING DEVICE FOR PRINTERS' CHASES.  
 APPLICATION FILED SEPT. 14, 1906.

908,571.

Patented Jan. 5, 1909.

2 SHEETS—SHEET 1.



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*H. W. Munday*

Inventor:  
*William A. Howe*

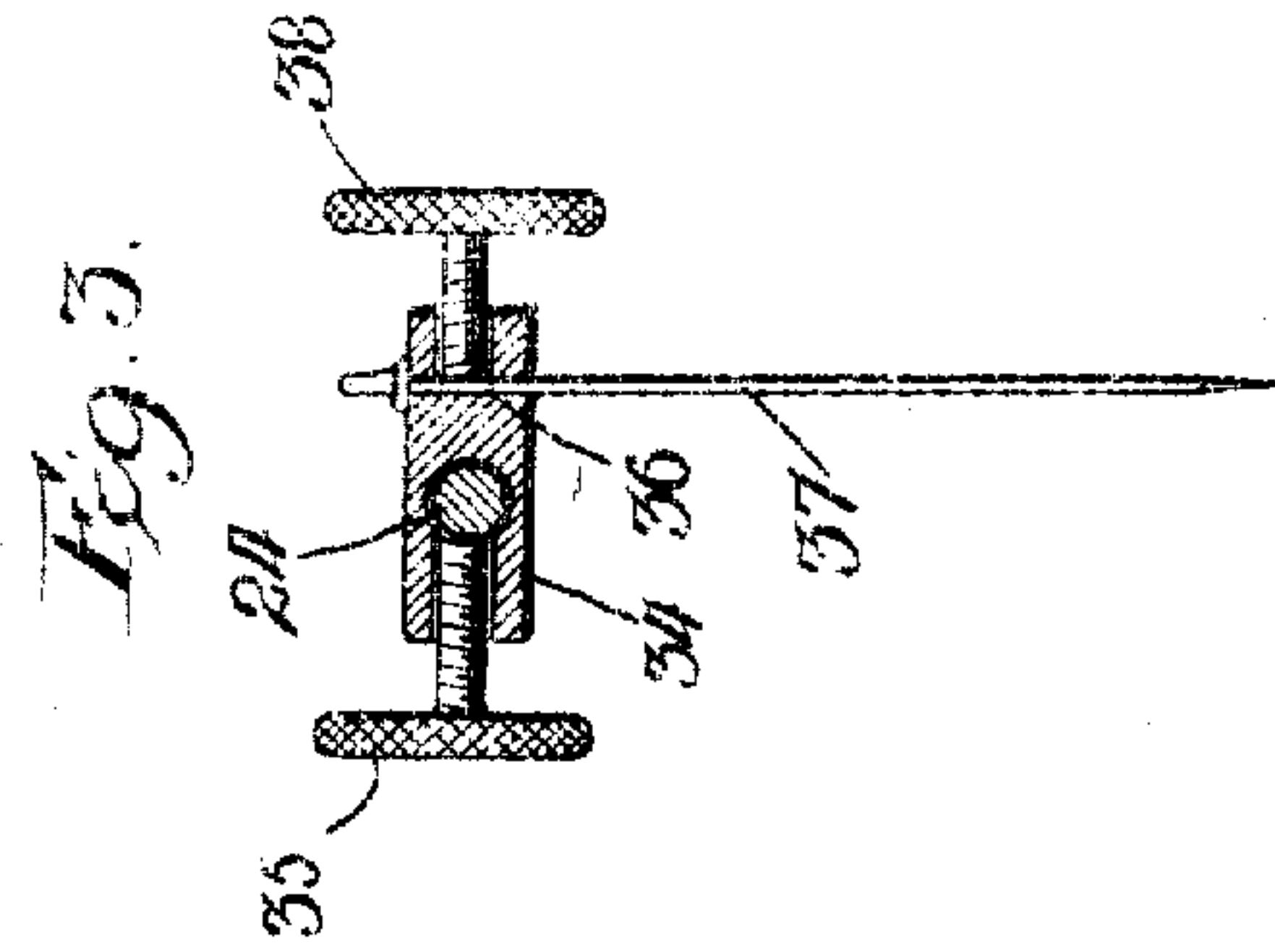
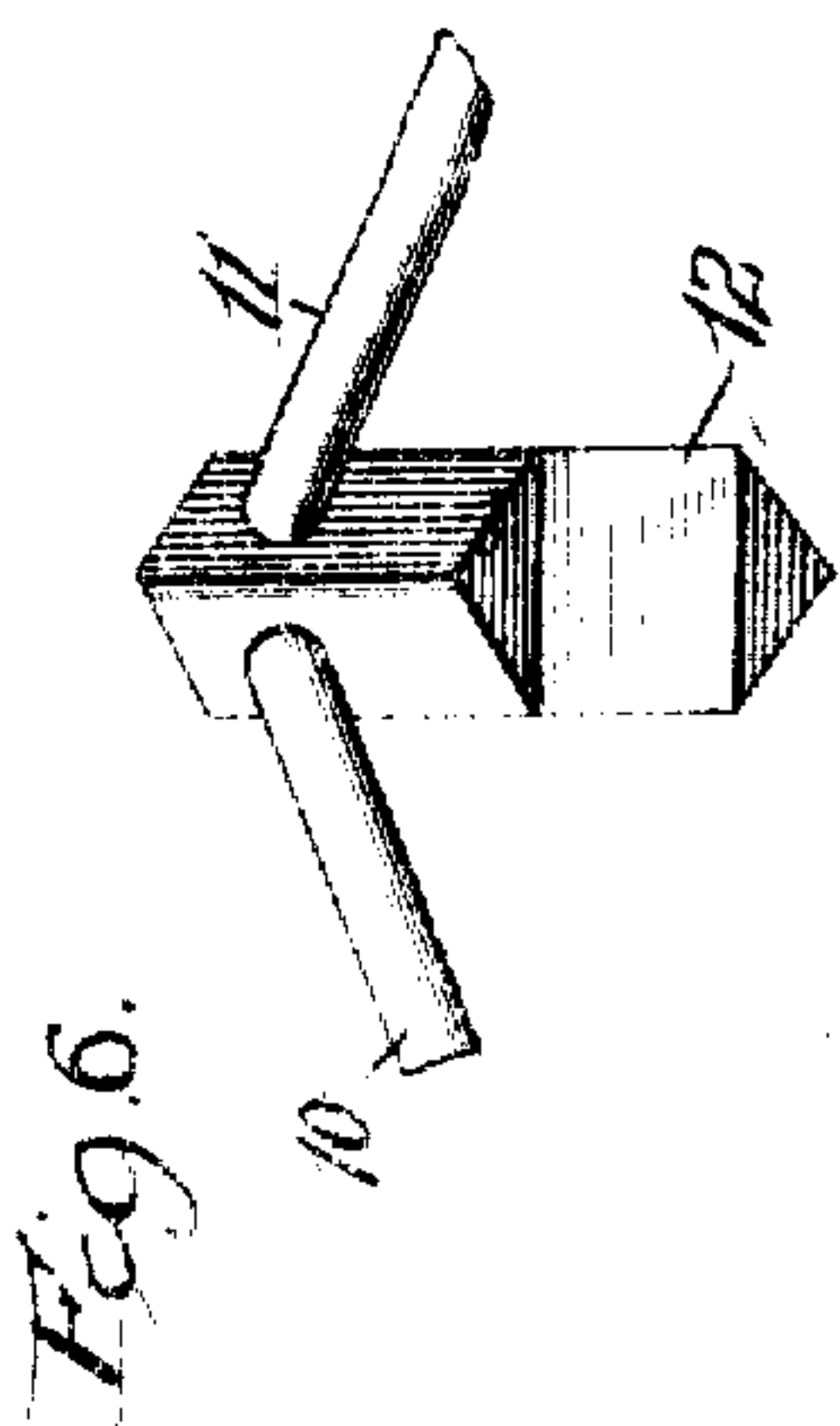
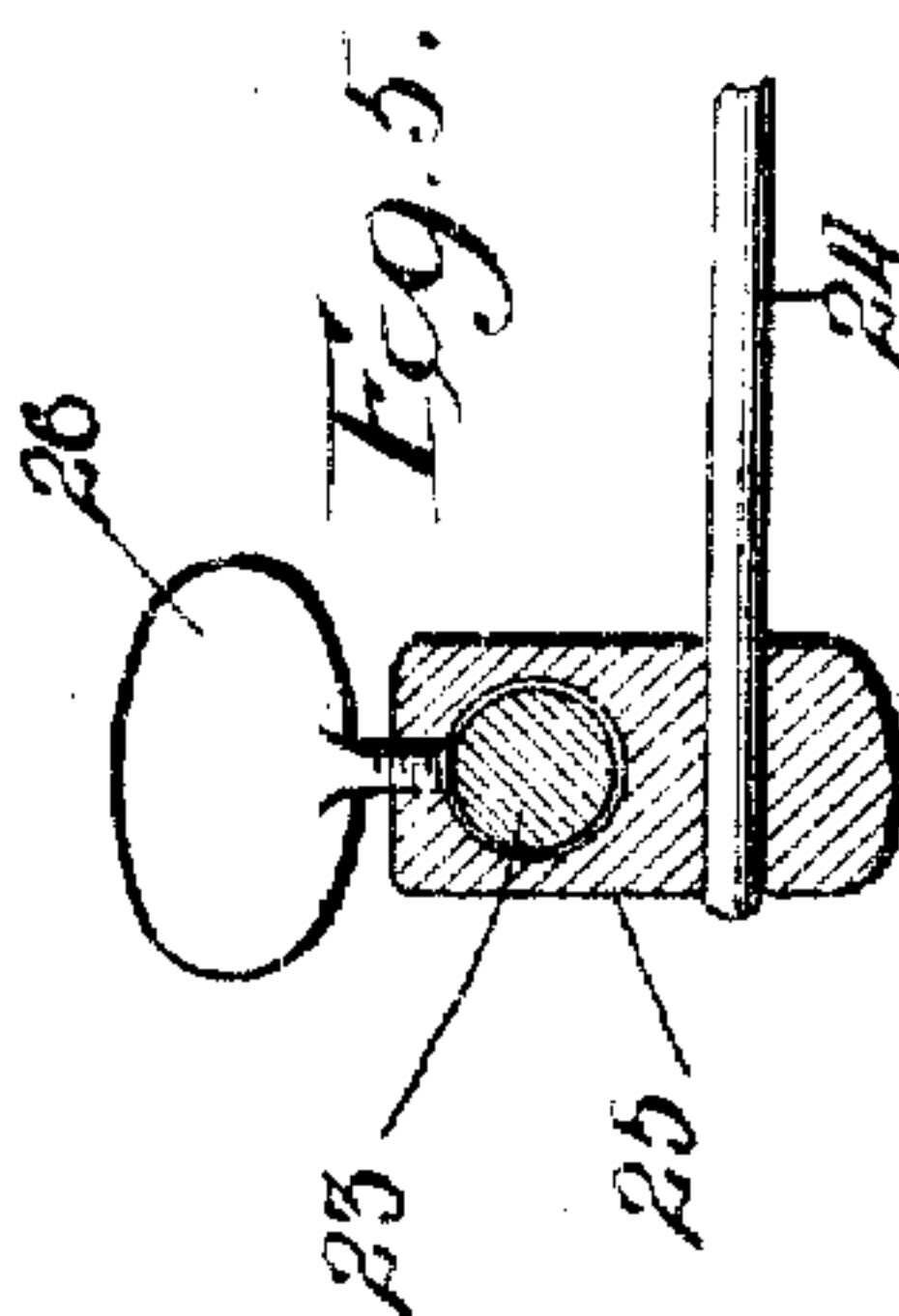
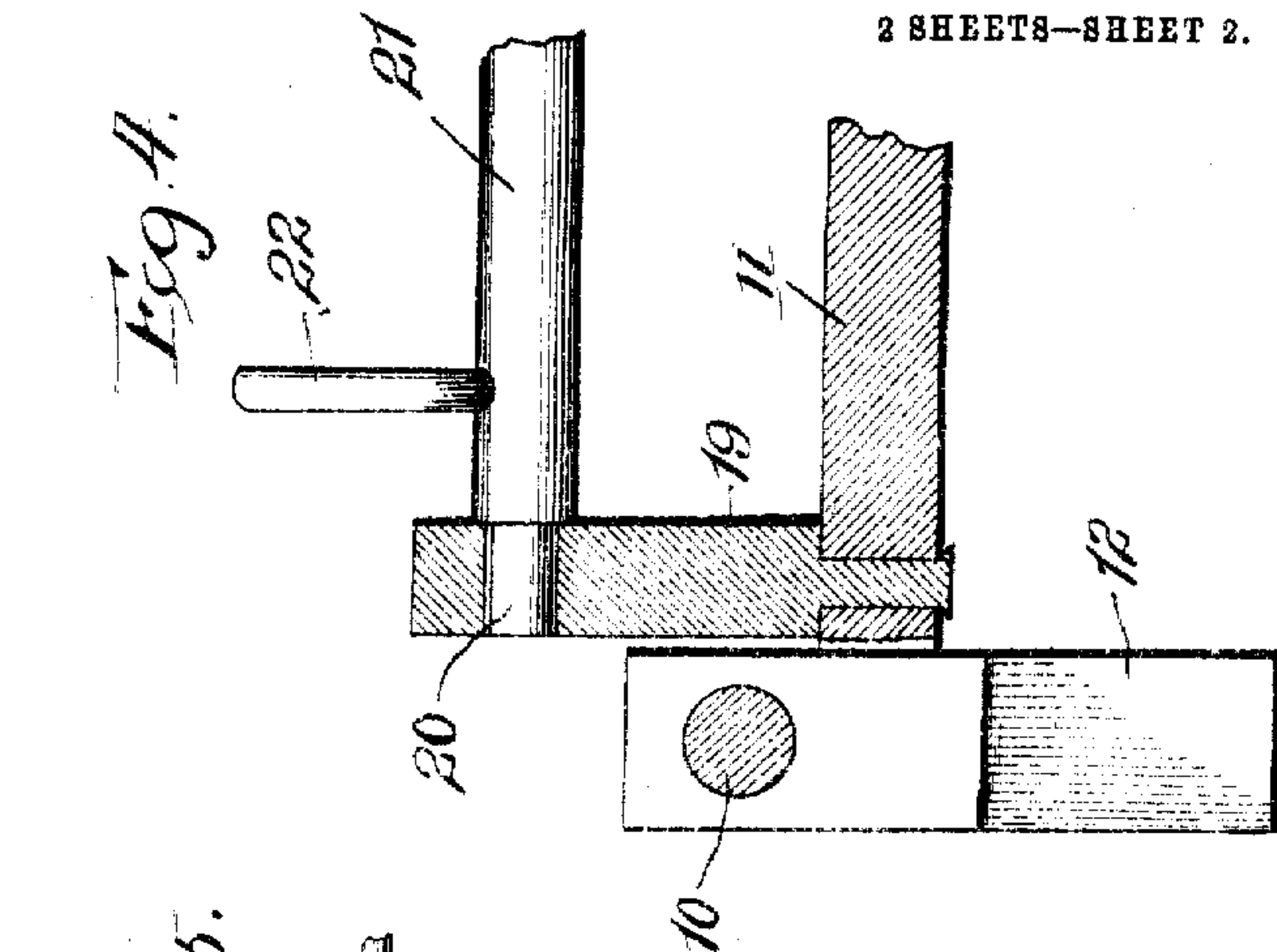
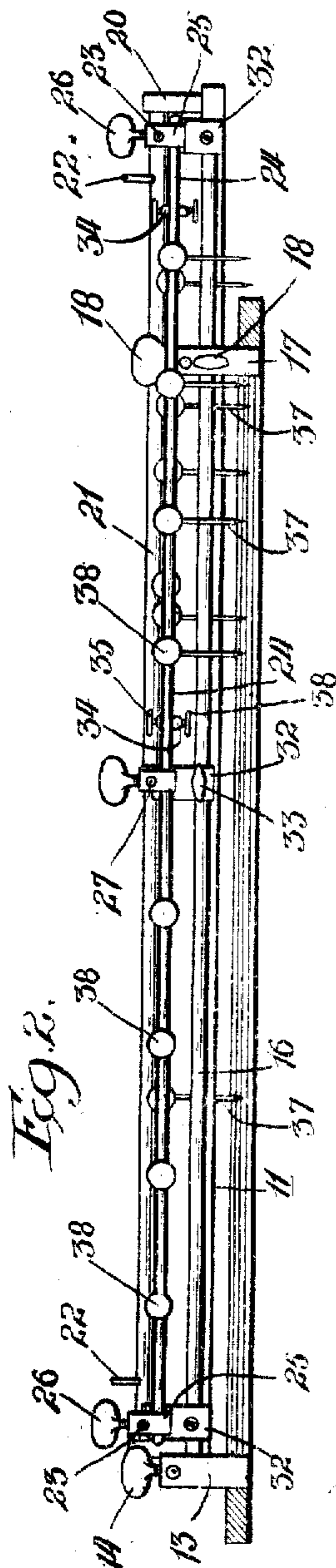
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2 SHEETS—SHEET 2.



Witnesses:  
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William A. Howe,  
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# UNITED STATES PATENT OFFICE.

WILLIAM A. HOWE, OF MORGAN PARK, ILLINOIS.

## REGISTERING DEVICE FOR PRINTERS' CHASES.

No. 908,571.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed September 14, 1906. Serial No. 334,638.

*To all whom it may concern:*

Be it known that I, WILLIAM A. HOWE, a citizen of the United States, residing in the village of Morgan Park, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Registering Devices for Printers' Chases, of which the following is a specification.

My invention relates to a registering device to facilitate bringing into proper registry with each other the successive electrotypes, half tones, zinc etchings, wood cuts, lithographic transfers, or other kinds of plates or engravings used by printers or lithographers in multi color printing or lithography, and required to be so placed in a succession of chases, one for each color, that the successively printed colors shall properly register with each other in the completed work. And the invention consists, primarily, in an adjustable frame work that may be accurately fitted in and adjusted to the chase, and that carries a further frame work bearing adjustable register pins that may be adjusted and clamped in position over any two or more desired points of the electrotypes, or other plate, whose position is to be registered; and the invention further consists in such other novel features of construction and operation as may be found to obtain in the device as hereinafter set forth or claimed.

In the accompanying drawing, forming a part of this specification, Figure 1 is a top plan view of my registering device set in place within a printers' chase, and having several of its register pins adjusted to and clamped in position over the corner points of an electrotypes or plate secured within said chase; Fig. 2 is a front elevation of the apparatus shown in Fig. 1; Fig. 3 is a sectional view on line 3—3 of Fig. 1, to show in transverse section one of the adjustable travelers for carrying the register pins; Fig. 4 is a fragmentary or sectional view on line 4—4 of Fig. 1, to show the construction of the non-adjustable corner of the frame work; Fig. 5 is a fragmentary sectional view on line 5—5 of Fig. 1, to show one of the adjustable carriages for the rods on which the register pin travelers are borne; and Fig. 6 is a fragmentary perspective, from below, of the fixed or non-adjustable foot of the main frame work.

Like letters of reference indicate like parts in all the figures.

In said drawings 10 and 11 are, respectively, two rods rigidly secured at right an-

gles to each other in the foot piece 12 that is shaped to fit within one corner, preferably the upper left hand corner, of the printers' chase. Running upon each of these rods, and movable for the entire length thereof, is a carriage 13, provided with a thumb screw 14, whereby said carriage may be clamped at any point to which it may be adjusted along the length of such rod. And in these carriages, 13, are rigidly secured two further rods 15 and 16, each projecting at right angles to the rod upon which its carriage is adjustable, and paralleling and substantially equaling the rod upon which the other of said carriages is adjustable. These two rods 15 and 16, secured in and movable with the carriages 13, 13, cross each other at right angles, and at their crossing point are connected together by a carriage 17 through which said rods may be adjusted and clamped by means of the thumb screws 18 and 18. By the adjustment of the carriages 13, 13 and 17, the movable rods 15 and 16 may be respectively brought toward or drawn away from the aforesaid stationary rods that they parallel, and may thus be caused to form with said stationary rods a square or rectangular oblong of any desired size, corresponding to the chase in which the frame work is to be adjusted. Each of the three carriages 13, 13 and 17 is prolonged downward to form a foot piece like the foot piece 12, to fit within one of the corners of the chase, so that when the frame work is placed over a chase the four foot pieces may be adjusted to fit accurately within the respective four corners of said chase, and held in position by means of the thumb screws that clamp the aforesaid movable carriages on the rods along which they respectively slide.

Projecting upward from opposite ends of the stationary rod 11 are a pair of up-rights 19 19, in which are provided bearings 20 20 for the respectively opposite ends of a rod 21 rotatable within said bearings, and having its rotation limited in one direction by the stops 22 22, projecting from it and adapted to come in contact with the rear face of said stationary rod 11. Two further rods 23 23, are secured in and project forward at right angles from the opposite ends of said rotatable rod 21, and about equal in length the rods they parallel in the main frame work, before described. Adjustable along these rods 23 23, and transverse thereto are a plurality of cross rods 24, 24, 24, each



secured at its ends in a pair of carriages 25  
 25 slidable along the rods 23 23 and clamped  
 in position thereon by the thumb screws 26,  
 26. These cross rods are additionally sup-  
 5 ported about midway between the rods  
 23 23 by the further rod 27, paralleling rods  
 23, 23, adjustable along the rod 21 by means  
 of the carriage 28 and thumb screw 29, and  
 provided with the series of adjustable car-  
 10 riages 30, 30, one for each cross rod 24, each  
 of said carriages being slidable on both its  
 cross rod and on the rod 27 and clamped  
 upon the latter by means of a thumb screw  
 31. Each of the rods 23 23, and also the  
 15 accessory supporting rod 27, is adapted to  
 drop into and be supported by a socketed  
 upright 32 secured on the rod 16 of the main  
 frame work, the socketed upright so sup-  
 porting the rod 27 being adjustable along  
 20 said rod 16 by means of the thumb nut 33.  
 Each of the cross rods 24, 24 bears a plurality  
 of travelers 34, 34, 34, slidable along the  
 length of said cross rod and clamped there-  
 by means of the thumb nuts 35, 35, and each  
 25 of said travelers is provided with a trans-  
 verse hole 36 adapted to receive a register  
 pin 37, projecting at right angles to the cross  
 rod 24 on which the traveler slides. And a  
 further thumb nut 38 is provided in each  
 30 traveler for clamping in raised or lowered  
 position the register pin inserted through  
 the hole 36 in said traveler.

It is obvious that one or more of the cross  
 rods 24 may be adjusted and clamped over  
 35 any desired parallel edge or line of an elec-  
 trotype or other plate secured in the chase  
 within which the frame work has been set;  
 and then two or more of the travelers on  
 such cross rod may be adjusted and clamped,  
 40 and their register pins set, over any two or  
 more desired points on such edge or line of  
 the electrotype or plate. And when two or  
 more points on the electrotype or other  
 plate have been thus registered, the main  
 45 frame work is removed from the chase, by  
 loosening these movable foot pieces, and is  
 set then into the chase that is to contain  
 the electrotype or other plate for the next  
 color, and is secured in such further chase by  
 50 pressing the foot pieces firmly into the four  
 inside corners of the chase and clamping the  
 movable foot pieces in position by means of  
 the thumb screws in their carriages 13, 13  
 and 17. After the main frame work has  
 55 been thus clamped in the second chase, the  
 second electrotype or other plate, loosely in  
 place within the chase, is shifted into registry  
 with the set register pins, and then the  
 upper frame work, bearing the cross rods  
 60 and register pin travelers, is swung up out  
 of the way, turning on the rotatable rod 21  
 until checked by the stops 22, and the elec-  
 trotype or plate is secured and locked in  
 position in the chase by means of the usual  
 65 furniture and quoins. The upper frame

work is then swung down again and the  
 position of the register pins noted, to ascer-  
 tain whether the electrotype or plate has  
 been shifted in the process of locking it in  
 position, and if it has so shifted the ad- 70  
 justing process is repeated until the regis-  
 tration is exact. The main frame work is  
 then loosened from the chase and is ready  
 to be set into the chase for the third or next  
 color. By this means registering of the 75  
 electrotypes or other plates for successive  
 colors is greatly expedited and facilitated,  
 and the greatest possible accuracy is assured.

My invention is herein set forth as em-  
 bodied in a particular form of construction, 80  
 but I do not limit myself thereto or to less  
 than all the possible forms in which the in-  
 vention as hereinafter claimed, may be em-  
 bodied.

I claim:—

1. In a registering device for printer's 85  
 chase, in combination, a quadrilateral frame-  
 work adapted to be frictionally clamped to  
 the interior of the chase, and a plurality of  
 adjustable register-points carried on said 90  
 framework, substantially as specified.

2. In a registering device for printer's  
 chase, in combination, an adjustable quadri-  
 lateral framework adapted to be frictionally  
 clamped to the interior of the chase, and a 95  
 plurality of adjustable register-points carried  
 on said framework, substantially as specified.

3. In a registering device for printer's  
 chase, in combination, a quadrilateral frame  
 adapted to be stationarily clamped to the 100  
 chase, a swinging frame hinged to said sta-  
 tionary frame, and a plurality of adjustable  
 register-points carried on said swinging  
 frame, substantially as specified.

4. In a registering device for printer's 105  
 chase, in combination, an adjustable frame  
 adapted to be stationarily clamped to the  
 chase, a swinging frame hinged to said sta-  
 tionary frame, and a plurality of adjustable  
 register-points carried on said swinging 110  
 frame, substantially as specified.

5. In a registering device for printer's  
 chase, in combination, an adjustable rectan-  
 gular framework adapted to be clamped to  
 the chase and containing two movable mem- 115  
 bers for effecting such adjustment to differ-  
 ent sizes of chases, and a plurality of adjust-  
 able register-points carried on said frame-  
 work, substantially as specified.

6. In a registering device for printer's 120  
 chase, in combination, an adjustable rectan-  
 gular framework adapted to be clamped to  
 the chase and containing two movable mem-  
 bers, crossing each other at a right angle, for  
 effecting such adjustment to different sizes 125  
 of chases, and a plurality of adjustable regis-  
 ter-points carried on said framework, sub-  
 stantially as specified.

7. In a registering device for printer's  
 chase, in combination, an adjustable rectan- 130



gular frame adapted to be stationarily clamped to the chase and containing two movable members for effecting such adjustment to different sizes of chases, a swinging frame hinged to said stationary frame, and a plurality of adjustable register-points carried on said swinging frame, substantially as specified.

8. In a registering device for printer's chase, in combination, an adjustable rectangular frame adapted to be stationarily clamped to the chase and containing two movable members, crossing each other at a right angle, for effecting such adjustment to different sizes of chases, a swinging frame hinged to said stationary frame, and a plurality of adjustable register-points carried on said swinging frame, substantially as specified.

9. In a registering device for printer's chase, in combination, a framework adapted to be clamped to the chase, a plurality of parallel cross rods adjustably movable in said framework, and a plurality of adjustable register-points carried on said cross rods, substantially as specified.

10. In a registering device for printer's chase, in combination, a frame adapted to be stationarily clamped to the chase, a swinging frame hinged to said stationary frame, a

plurality of parallel cross rods adjustably movable in said swinging frame, and a plurality of adjustable register-points carried on said cross rods, substantially as specified.

11. In a registering device for printer's chase, in combination, an adjustable frame adapted to be stationarily clamped to the chase, a swinging frame hinged to said stationary frame, a plurality of parallel cross rods adjustably movable in said swinging frame, and a plurality of adjustable register-points carried on said cross rods, substantially as specified.

12. In a registering device for printer's chase, in combination, an adjustable rectangular frame adapted to be stationarily clamped to the chase and containing two movable members for effecting such adjustment to different sizes of chases, a swinging frame hinged upon said stationary frame, a plurality of parallel cross rods adjustably movable in said swinging frame, a plurality of adjustable travelers movably carried on said cross rods, and a plurality of register pins adapted to be adjustably clamped in said travelers, substantially as specified.

WILLIAM A. HOWE.

Witnesses:

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H. T. HIXSON.