

No. 754,533.

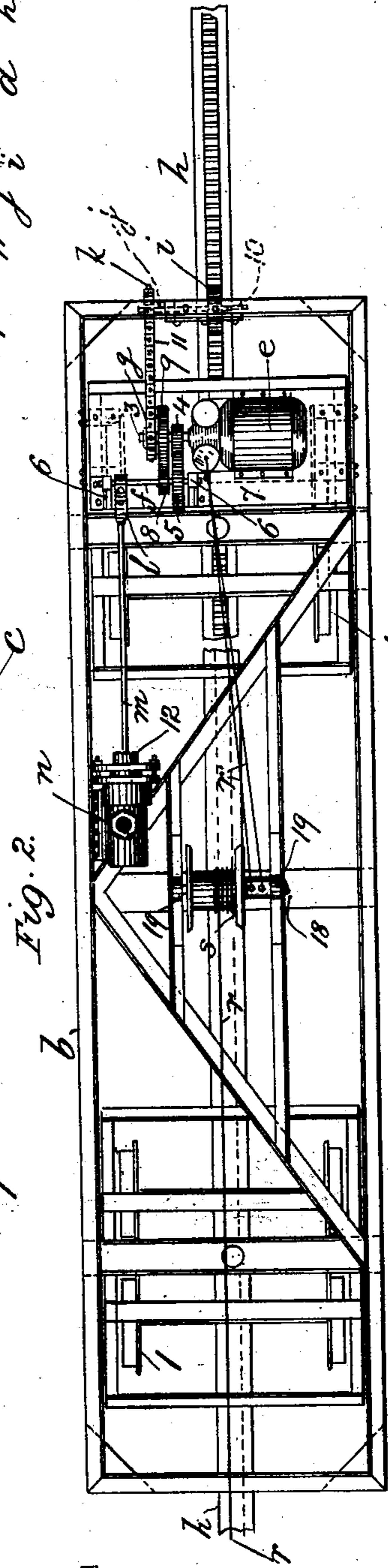
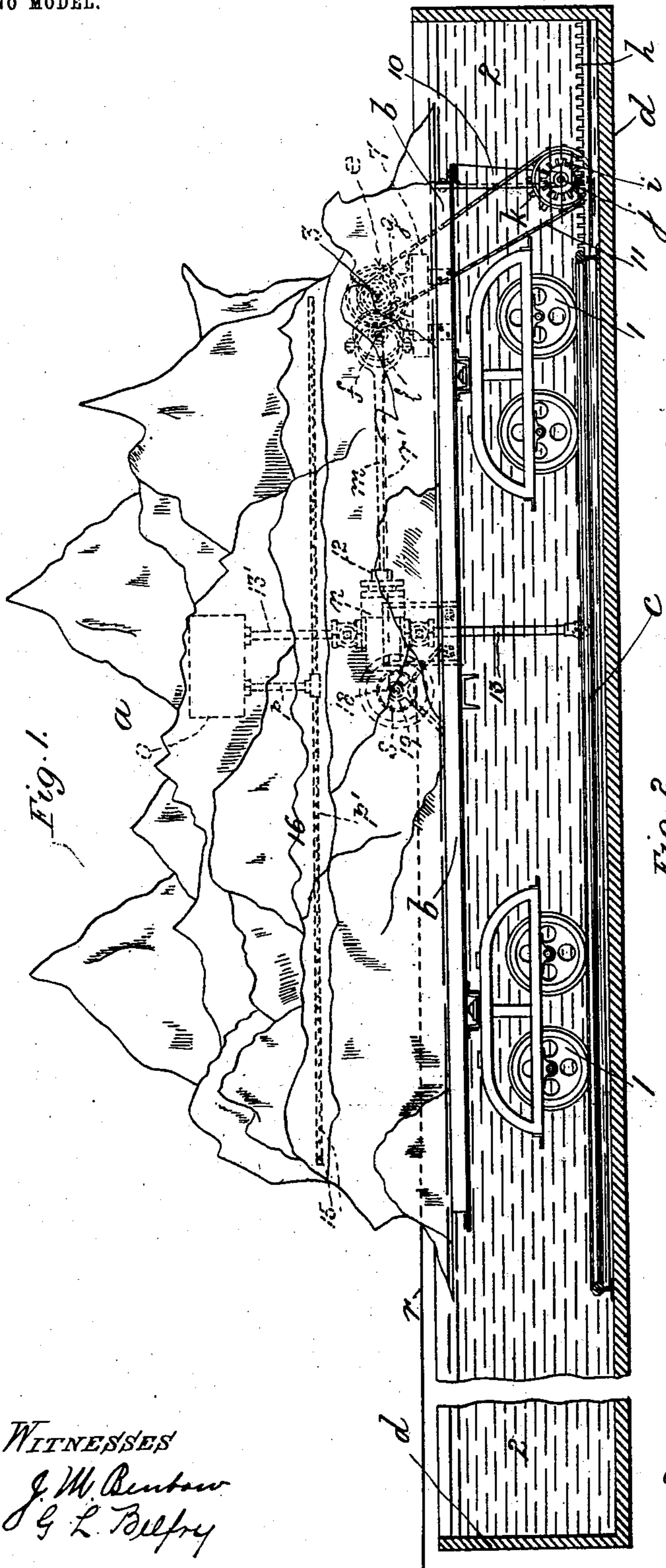
PATENTED MAR. 15, 1904.

E. J. AUSTEN.  
SCENOGRAPHIC APPARATUS.

APPLICATION FILED DEC. 7, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



WITNESSES

J. M. Bentow  
G. L. Belfry

INVENTOR

Edward J. Austen  
By Edward W. Furrell  
His Atty

No. 754,533.

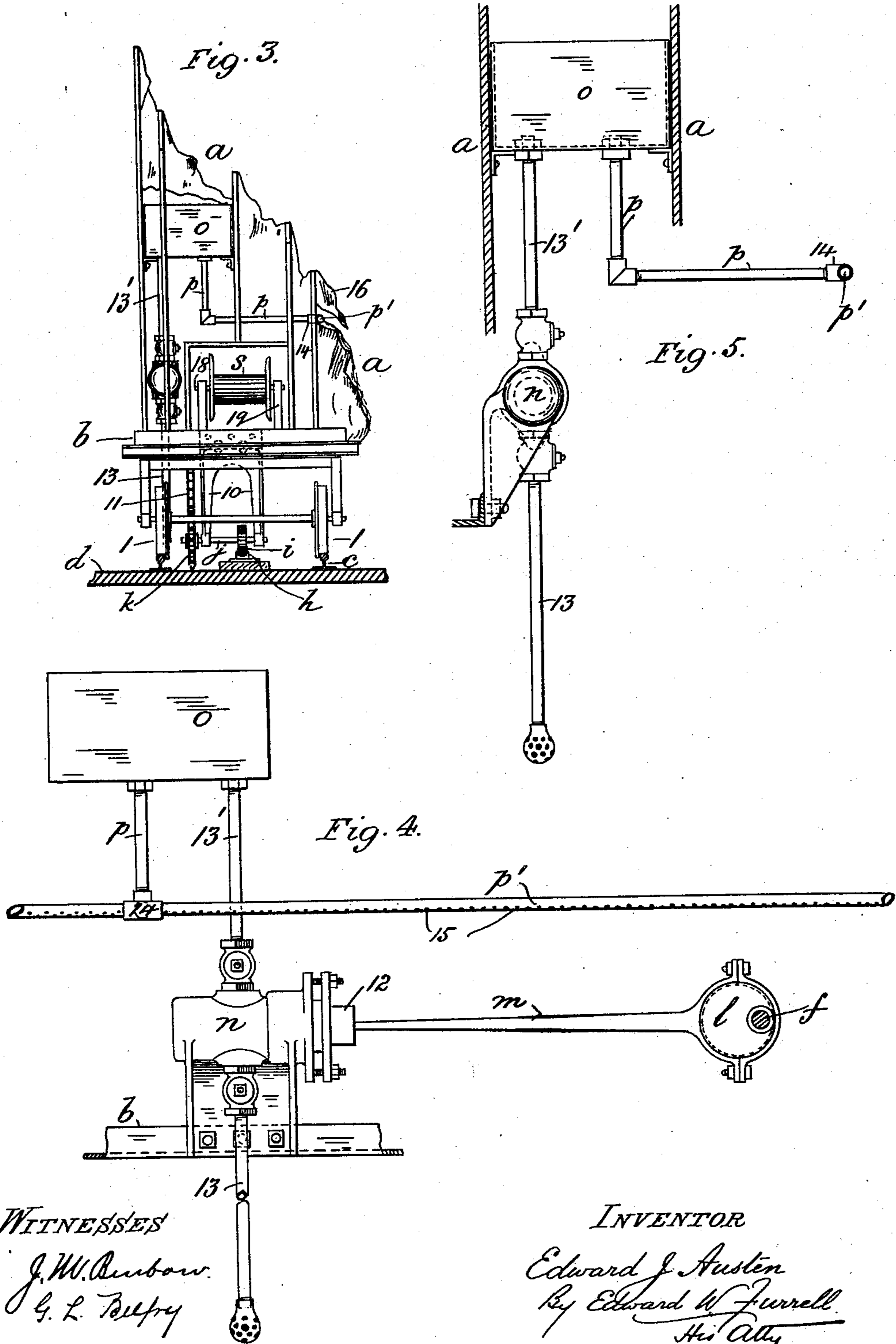
PATENTED MAR. 15, 1904.

E. J. AUSTEN.  
SCENOGRAPHIC APPARATUS.

APPLICATION FILED DEC. 7, 1903.

NO MODEL.

3 SHEETS—SHEET 2.



No. 754,533.

PATENTED MAR. 15, 1904.

E. J. AUSTEN.  
SCENOGRAPHIC APPARATUS.

APPLICATION FILED DEC. 7, 1903.

NO MODEL.

3 SHEETS—SHEET 3.

Fig. 6.

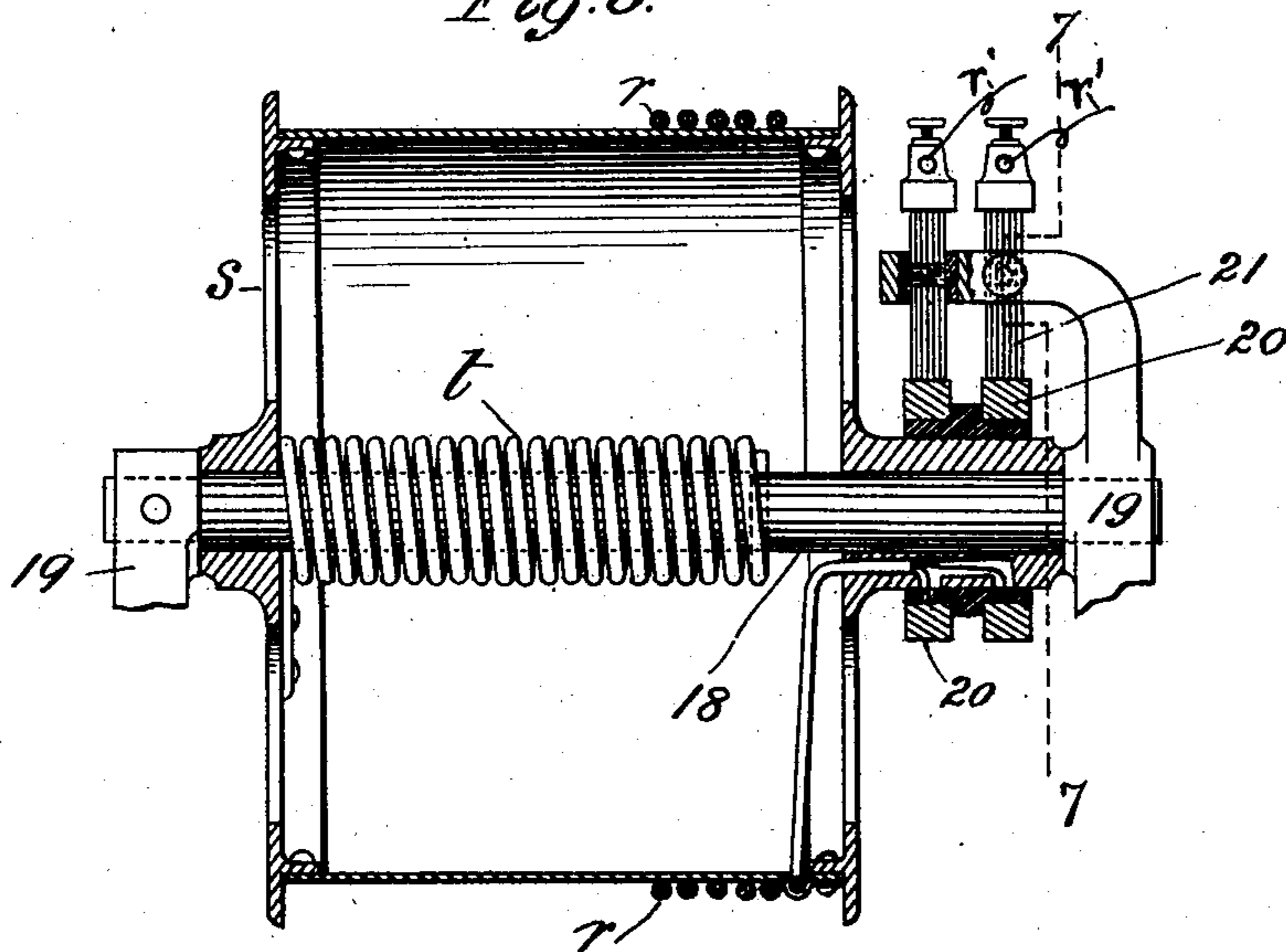
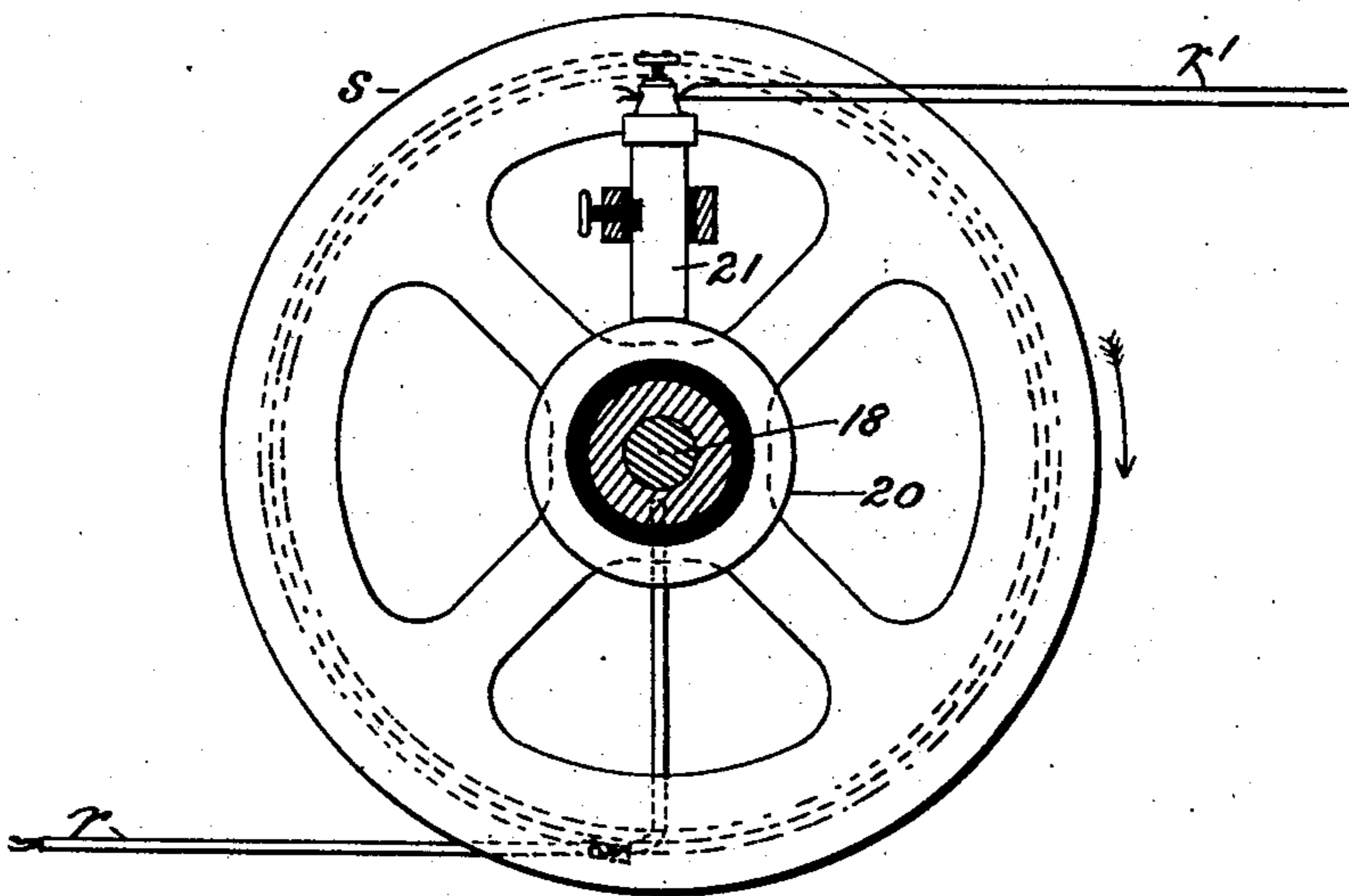


Fig. 7.



WITNESSES  
E. M. Kitchen  
A. W. Penland

INVENTOR  
Edward J. Austen  
By Edward W. Turrell  
His Atty

# UNITED STATES PATENT OFFICE.

EDWARD J. AUSTEN, OF ST. LOUIS, MISSOURI.

## SCENOGRAPHIC APPARATUS.

SPECIFICATION forming part of Letters Patent No. 754,533, dated March 15, 1904.

Application filed December 7, 1903. Serial No. 184,155. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. AUSTEN, a subject of the King of Great Britain, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Scenographic Apparatus, of which the following is a specification.

My invention relates to scenographic apparatus, and has for its object to enable a scenograph representing an island, iceberg, coastline, headland, or the like to be moved steadily and at any desired rate along a body of real water, the base of the scenograph being coincident with or submerged beneath the surface, and simultaneously to utilize the water in transit for producing realistic natural effects upon the various features of the scenograph or for operating mechanical devices in connection therewith.

The invention consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a side elevation of my improved scenographic apparatus as applied to a scenograph representing a floating iceberg; Fig 2, a top plan of the car or truck for supporting the scenograph combined with parts of the apparatus as seen in Fig. 1 detached; Fig. 3, an end elevation of the apparatus as seen from the left of Fig 1; Figs 4 and 5, detail views to enlarged scale of parts of the apparatus as seen, respectively, in Figs. 1 and 3; Fig. 6, a vertical longitudinal section to enlarged-scale through the spring-drum forming part of my invention and seen in broken lines in Fig. 1, and Fig. 7 a vertical transverse section thereof on line 7 7 in Fig. 6.

Like letters and numerals of reference denote like parts in all the figures.

*a* is a scenograph representing an iceberg, which is supported on a car or truck *b*, provided with wheels 1 and adapted to travel along the tracks *c*, which are fixed on the bottom or floor of a tank *d*, containing water 2. On the car *b*, clear of the water 2, is mounted

an electric motor *e*, which is adapted to rotate the shaft 3. On the shaft 3 is fixed a spur-toothed pinion 4, which engages a toothed wheel 5, fixed on a counter-shaft *f*, the latter being mounted in suitable bearings 6, fixed on the base 7 of the motor *e*. On the shaft *f* is fixed a toothed pinion 8, which engages a toothed wheel 9, mounted loosely on the motor-shaft 3, or any other suitable arrangement of gears may be used for reducing the speed of the motor-shaft 3. Formed on or fixed laterally to the toothed wheel 9 and mounted therewith loosely on the motor-shaft 3 is a sprocket-wheel *g*. On the floor of the tank *d*, between the tracks *c* and longitudinally therewith and with the car *b*, is fixed a rack-bar *h*, having teeth on its upper face, which are engaged by a toothed wheel *i*, fixed on a shaft *j*, which is mounted in suitable bearings 10, depending from and fixed to the framework of the car *b*. On the shaft *j* is fixed a sprocket-wheel *k*, which is driven from the sprocket-wheel *g* on the motor-shaft 3 by a sprocket-chain 11, whereby on the rotation of the motor-shaft 3 and reducing-gears 4, 5, 8, and 9 the car *b*, with the scenograph *a*, is propelled along the tracks *c*. On the counter-shaft *f* is fixed an eccentric *l*, (or crank,) which is connected by the rod *m* with the plunger 12 of a force-pump *n*, fixed on the car *b* clear of the water 2. The suction-pipe 13 of the pump *n* extends downward into the water 2 and the delivery-pipe 13' into a cistern or tank *o*, which is preferably closed at the top and fixed to any convenient part of the scenograph out of view from the auditorium of the building containing the apparatus. From the cistern *o* a pipe *p* extends toward the front of the scenograph *a*, where it is connected by a T-piece 14 with a pipe *p'*, which is arranged longitudinally along the face of the scenograph or iceberg *a* and is perforated at suitable intervals along its entire length, the perforations 15 of the pipe *p'* being so arranged as to cause the water passing therethrough from the pipe *p* to flow uniformly and in a thin sheet or film over the surface of the iceberg

*a* thereat, and thereby present to the view of a spectator in the auditorium the realistic effect of glistening ice. The pipe *p'* is hidden from view by an overhanging portion 16 of the  
5 scenograph.

The wire cable *r* for supplying the electric current to the motor *e* is passed around and fixed near one end to the periphery of the drum *s*, made preferably of iron with remov-  
10 able ends, which is axially mounted and adapted to rotate loosely, clear of the water 2, on a shaft 18, fixed in bearings 19, which are secured to the car *b*. Within the drum *s*, Fig. 6, is a spring *t*, which is coiled around and  
15 fixed at one end to the shaft 18 and at its other end to the drum *s*. The end portion of the wire cable *r* where it is fixed to the periphery of the drum *s* passes through a hole thereat into the interior of the drum *s* and thence  
20 through the hub of the latter, where the respective conductors are electrically connected with the distributing and collecting rings 20, which rotate with the drum *s* and from which the current is directed through suitable  
25 brushes 21 and wiring *r'* to the motor *e* in the usual well-known manner. By this arrangement when the car *b* is traveling in one direction, or, say, to the right, the wire *r* is unwound from the drum *s*, which is thereby ro-  
30 tated in the direction indicated by the arrow, Fig. 7, and in so doing coils or winds up the spring *t*, and when traveling in the opposite direction the wire *r* as it is slackened is wound around or taken up by the rotation of the drum  
35 *s* in the opposite direction in obedience to the recoil of the spring *t*, whereby the wire *r* is held taut in whatever position the car may be on the track *c*.

By this invention, owing to the water 2 acting as a resisting medium during the propul-  
40 sion of the car *b*, a steadiness of movement, which is essential for perfecting the illusion of the gradual disappearance of the scenograph from the view of the spectator in the  
45 auditorium, is obtained. Moreover, the action of the pump *n* and water effect on the scenograph are uniformly maintained during the

entire transit of the car *b* and scenograph *a* across the field of view.

What I claim as my invention, and desire to 50 secure by Letters Patent, is—

1. In scenographic apparatus, the combination of a scenograph, a tank containing water, a car mounted on wheels and supporting the scenograph, the said car being adapted to 55 travel along the floor of the tank within the said water, a motor fixed on the car, a toothed rack fixed on the said floor longitudinally with the car, a shaft mounted in bearings fixed to the car, a toothed wheel fixed on the shaft and 60 engaging the said rack, and means for rotating the shaft from the said motor, substantially as described.

2. In scenographic apparatus, the combination of a scenograph, a car mounted on wheels 65 and supporting the scenograph, an electric motor fixed on and adapted to propel the said car, a shaft suitably mounted on the car, a drum revoluble on the shaft, a coil-spring surrounding and connecting the shaft to the said 70 drum, and a wire fixed to and adapted to be wound around the drum, the said wire being electrically connected with the said motor, substantially as described.

3. In scenographic apparatus, the combina- 75 tion of a scenograph, a tank containing water, a car mounted on wheels and supporting the scenograph, the said car being adapted to travel along the floor of the tank within the said water, a motor fixed on and adapted to 80 propel the said car, a cistern fixed on the car, a pump fixed to the car and operated by the said motor, the suction-pipe of the pump extending into the said water and the delivery-pipe 85 into the cistern, and a perforated pipe in communication with the cistern, substantially as described for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD J. AUSTEN.

Witnesses:

G. L. BELFRY,  
EDWARD W. FURRELL.