

Specification of Alexander Melville Clark : orthopedic apparatus.

Contributors

Clark, Alexander Melville.

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A.D. 1867, 7th DECEMBER.

N° 3493.

SPECIFICATION

OF

ALEXANDER MELVILLE CLARK.

ORTHOPEDIC APPARATUS.

LONDON:

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Orthopedic Apparatus.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Alexander Melville Clark at the Office of the Commissioners of Patents, with his Petition, on the 7th December 1867.—A communication from abroad by Mademoiselle Victorine Leneveu, Corset Maker, of 29, Boulevard St. Martin, Paris.

5 I, ALEXANDER MELVILLE CLARK, of 53, Chancery Lane, in the County of Middlesex, do hereby declare the nature of the said Invention for "**IMPROVEMENTS IN ORTHOPEDIC APPARATUS FOR THE PREVENTION AND TREATMENT OF SPINAL DISEASES,**" to be as follows:—

10 This Invention relates to improvements in orthopedic apparatus for facilitating the natural developement of the vertebrae of the neck and spine in children of tender age. The apparatus is also applicable for use by persons of more advanced age for the purpose of restoring to these parts their natural form in cases where they may have become deformed. It is well known that in young children, and especially infants, the head is disproportionately larger
15 than the rest of the body. The vertebrae of the neck and spine are at first incapable of supporting the head, causing a shortness of neck in those children where the weakness manifests itself in the vertebrae of the neck, or they become deformed when the spine proves the weaker part.

20 The apparatus of this Invention is intended as a remedy for the above. It consists of a kind of chair mounted on castors, in which a child may either sit or stand and move in any direction. The shoulders are supported by arms so as to keep them raised without inconvenience, while the head is also supported by a ring and elastic network, which without preventing any natural movements

Clark's Improved Orthopedic Apparatus.

at same time relieves the weak parts. The apparatus is arranged in such manner as to be suited to all ages, the parts being readily adjusted by means of cords. The apparatus may be employed both for promenade and house purposes, being made in parts which are readily adjustable, as shown in the Drawings. The apparatus is to be used as a remedy for all deformities of the spine and neck, as it does not develop one member to the detriment of another, it being, as will be herein-after explained, capable by tightening or slackening certain cords of being adapted for use by a child in the several stages of its growth.

The Invention thus consists in the employment of the herein-described apparatus, more especially for curing spinal deformities of all kinds, two examples being shown in the accompanying Drawings.

Figure 1 shows a side view of the first arrangement, and Figure 2 a front view of same.

a, framing of the apparatus, the foot being provided with rollers or castors *b* for moving the apparatus in any direction. The two uprights *a*, *a*, are connected by hooked arms *c* to the fore carriage *d* which is steered by the lever *f*. *g*, seat, jointed at *h*, falling down in the red line position when the apparatus is to be used for walking purposes; *i*, back rest sliding on the upright rods *a*; the arm rests *j* of part *i* are supported and raised or lowered by means of pull cords *k* for supporting the person under the arms; *l*, elastic ring and network enclosing the head and supporting same while permitting of its free movement.

Figure 3 shows a side view and Figure 4 a front view of a modified arrangement of the apparatus. In these two Figures the apparatus is so arranged that the patient may set it in motion and guide it in any direction. The motion of the vehicle is obtained by the aid of toothed gearing set in action by a crank handle which is turned by hand. Instead of toothed wheels another arrangement may be adopted (such as cranks) for setting the apparatus in motion in the manner of a velocipede. Further, instead of using a steering rod, as shown, I may connect the foot plate to the fore wheel by means of metal rods, so as to steer with the feet in any direction. By this means the patient has free use of the hands for holding a book or otherwise. I may also render the apparatus elastic by the aid of springs, as in ordinary vehicles, or by elastic, india-rubber, or other straps for example.

a, supporting frame of the apparatus mounted on a carriage, consisting of two hind wheels *b* and a fore wheel *c*, the latter being mounted so as to turn by the hand lever *d* for steering the vehicle, or it may be used for drawing it; *f*, foot plates provided on frame *a* as before mentioned; these foot plates may be

Clark's Improved Orthopedic Apparatus.

connected by rods with the fore wheel *c* for guiding the apparatus with the feet. On the hinder axle *g* is keyed a toothed wheel *h* gearing with a bevil pinion *i*, the shaft of which carries a crank handle *k* at its upper end for driving the vehicle. *l*, upper framing; *m*, back fixed to part *l* by screws *n*,
5 said back being readily raised or lowered, as also arms *o*; *p*, seat supported by elastic or other straps; *q*, elastic net for enveloping the head of a child or patient suspended by a strap *r*.

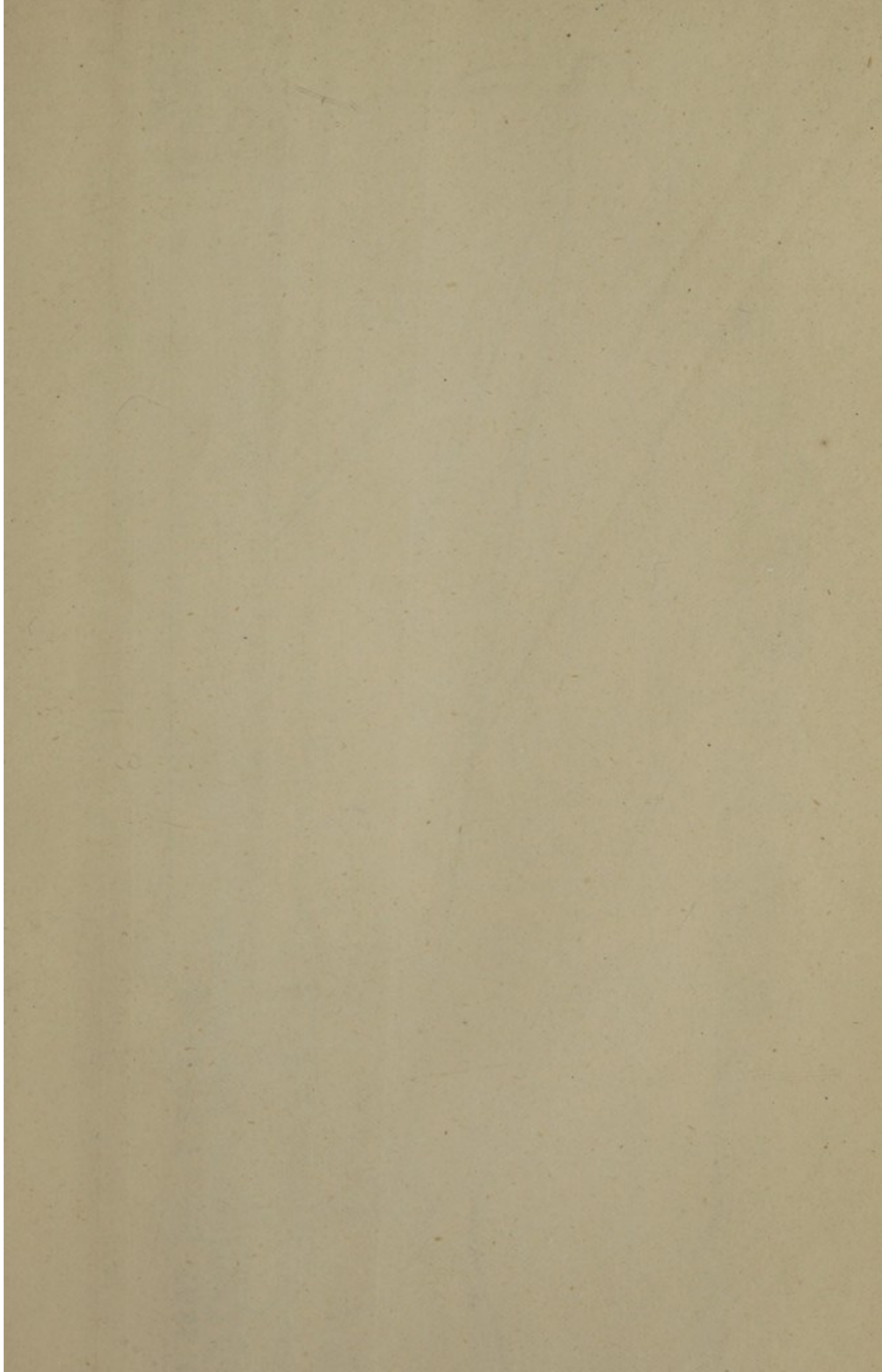
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On the hinder axle γ is keyed a toothed wheel A gearing with a
pinion δ , the shaft of which carries a crank handle δ at its upper end
driving the vehicle. A upper bearing; ω , back fixed to part γ by
said back being readily raised or lowered, as also arms ϵ ; ρ , seat supported
by elastic or other straps; ν , elastic net for enveloping the head of a child
patient suspended by a strap r .

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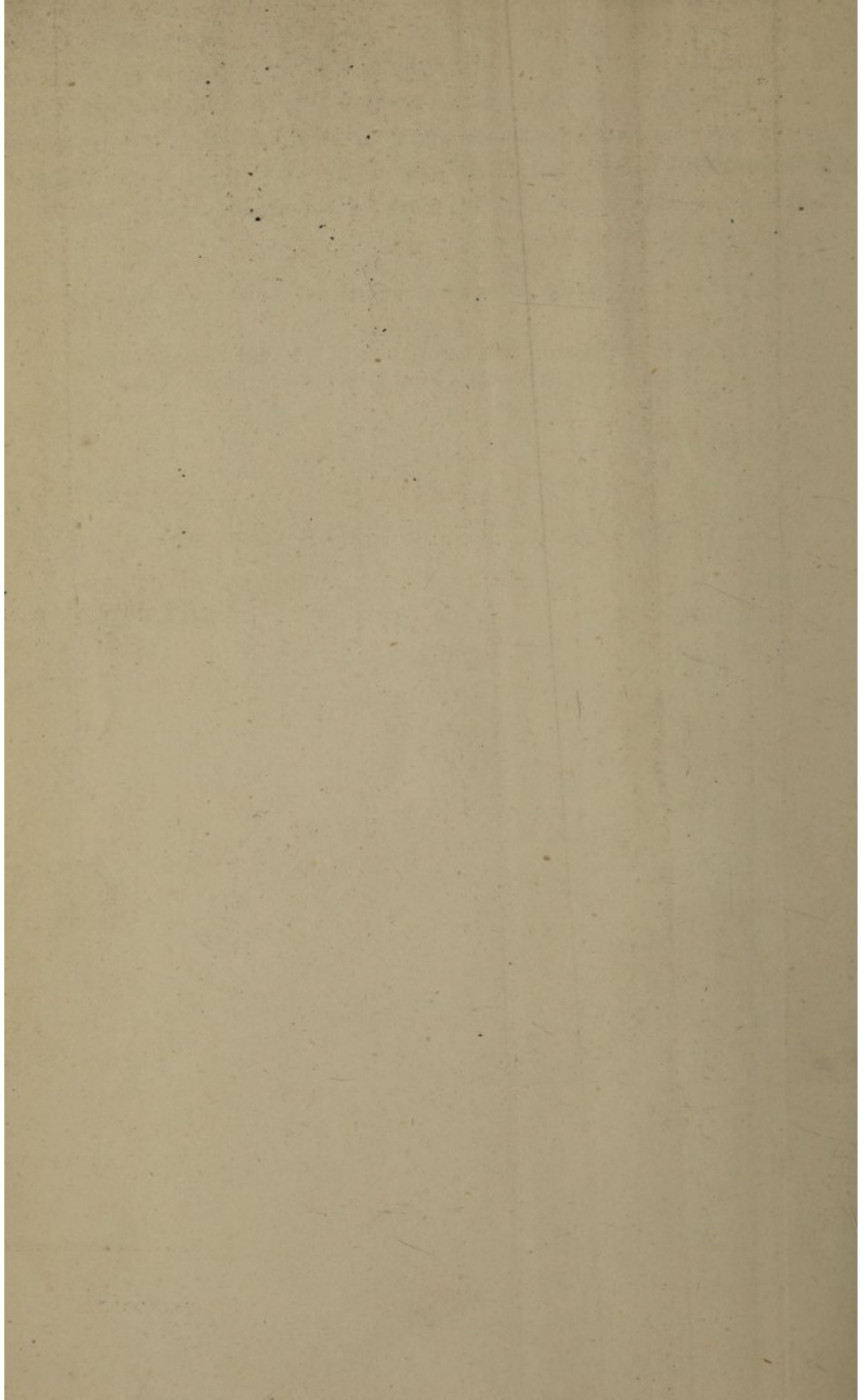
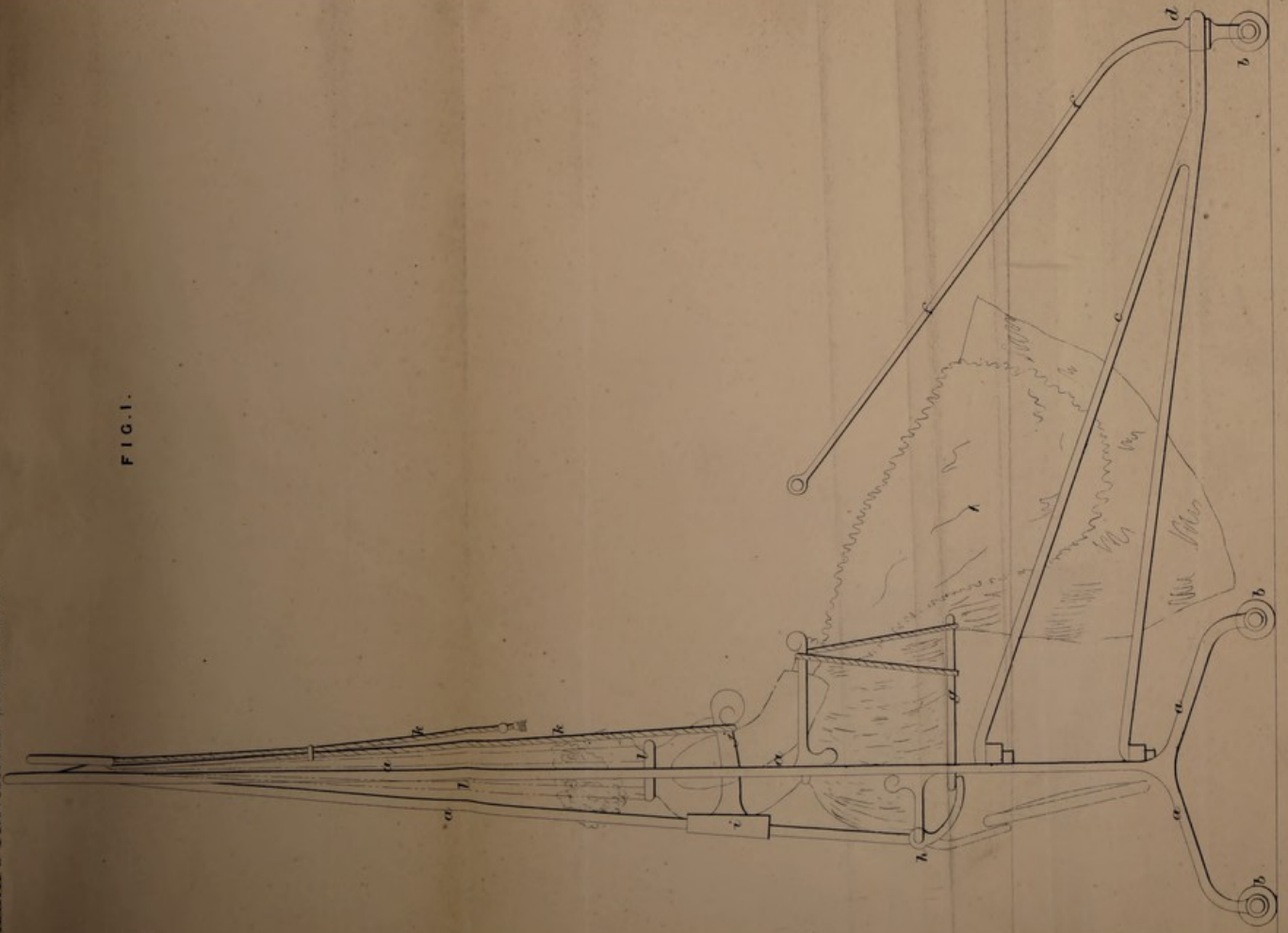


FIG. 1.



The drawing left with Provisional Specification is partly colored.

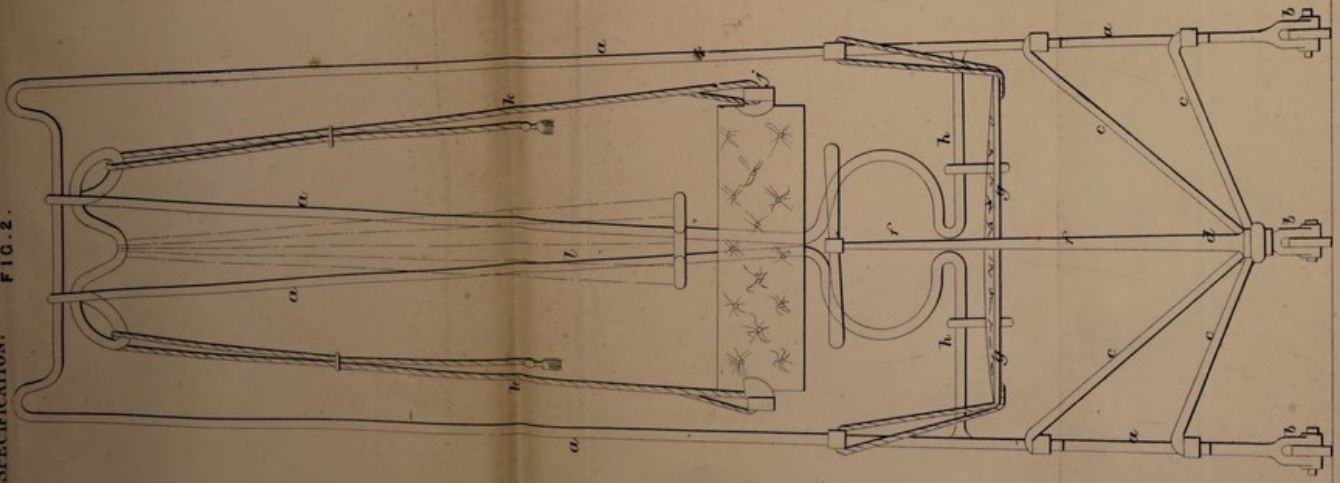
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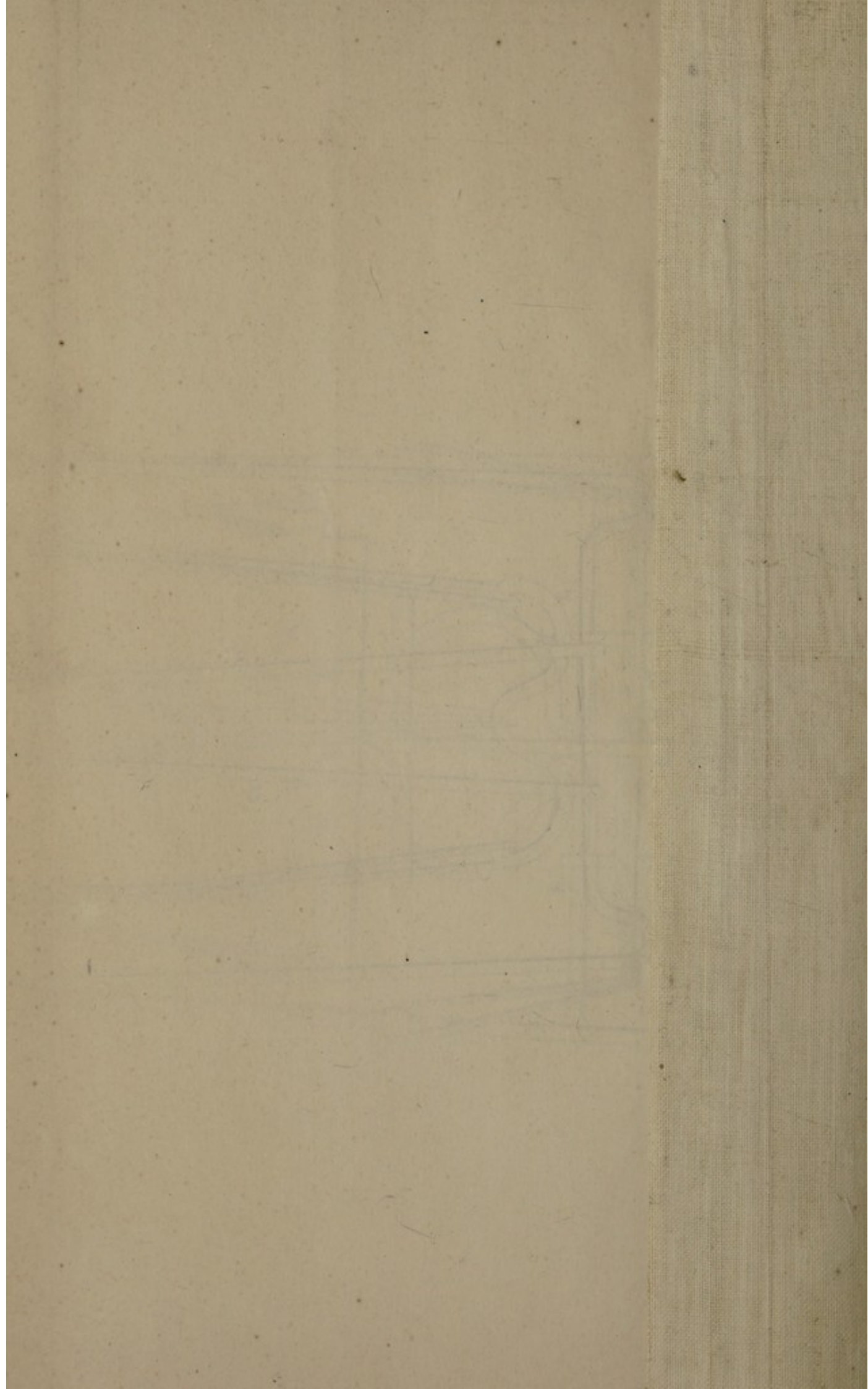
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FIG. 2.



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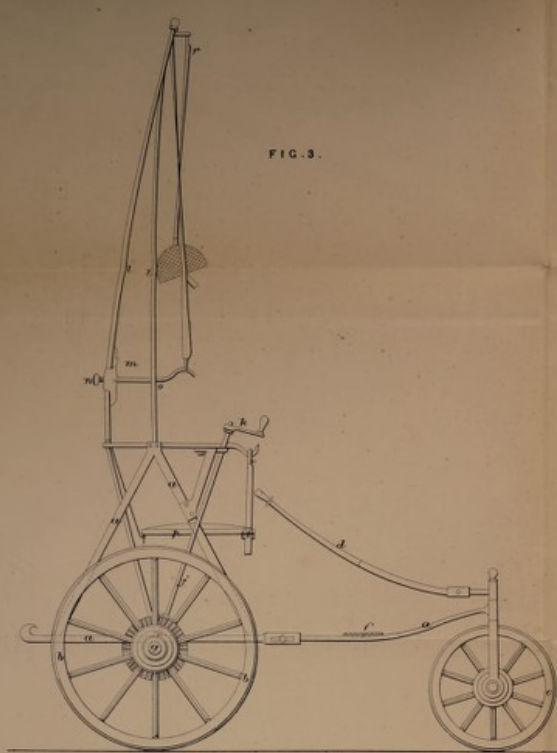


FIG. 3.

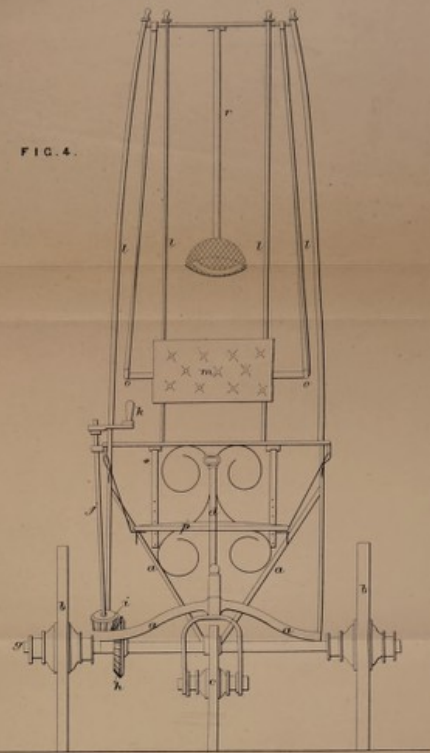


FIG. 4.

The drawing left with Provisional Specification is not colored.

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