

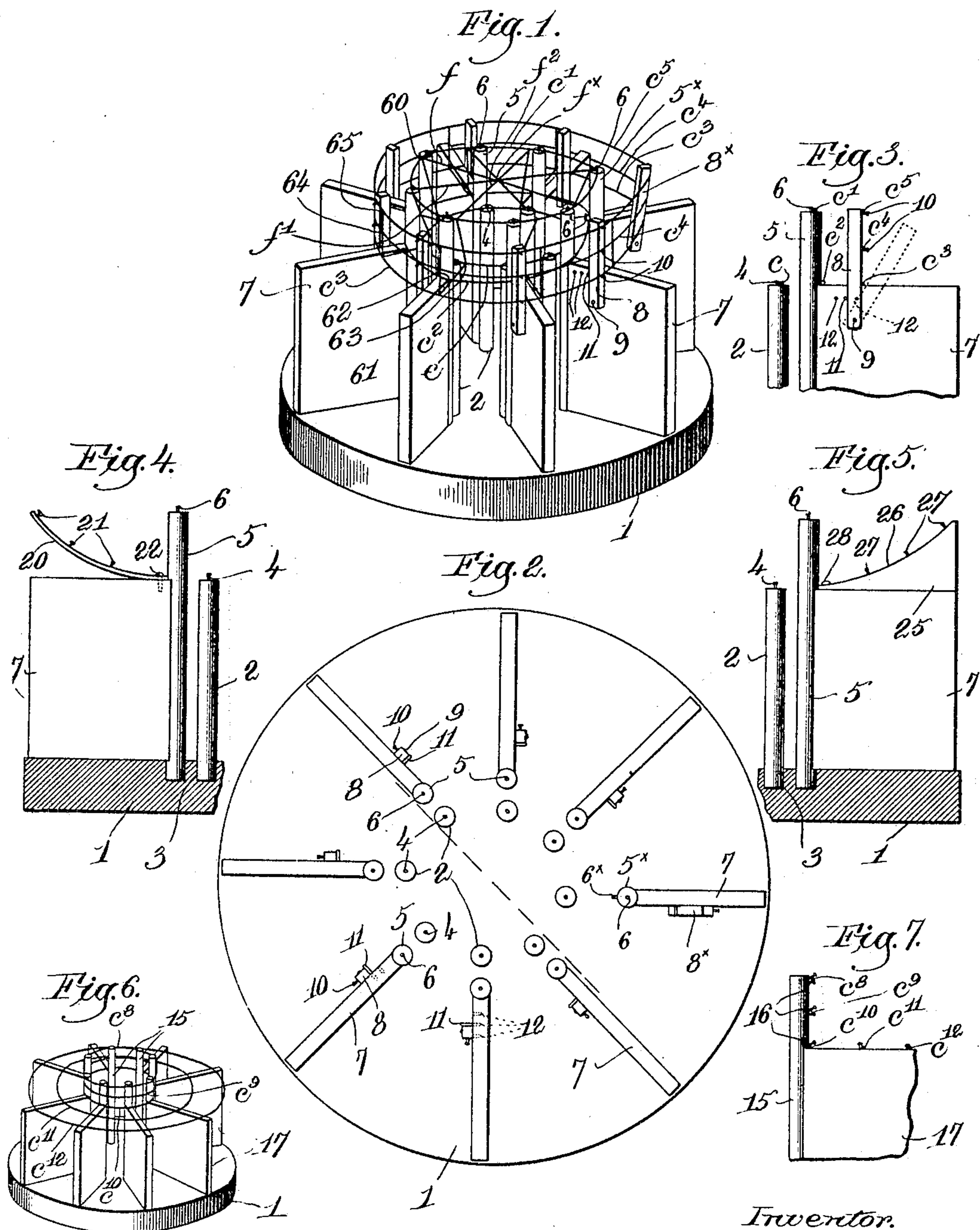
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FORM FOR MAKING TWISTED WIRE HAT FRAMES.

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NO MODEL.



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FORM FOR MAKING TWISTED-WIRE HAT-FRAMES.

SPECIFICATION forming part of Letters Patent No. 775,173, dated November 15, 1904.

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To all whom it may concern:

Be it known that I, WINTHROP M. JAMESON, a citizen of the United States, and a resident of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Forms for Making Twisted-Wire Hat-Frames, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a simple and convenient form to facilitate the construction of twisted-wire frames for ladies' hats. Such hat-frames are composed of curved wires technically termed "round-and-round" wires, which give the substantially circular shape to the crown and the coronet or the brim, as the case may be, and "fore-and-aft" wires which radiate from a common center at the top of the crown and are secured to the several round-and-round wires. Heretofore a buckram or plaster block has most generally been used as a form, the round-and-round wires being temporarily attached thereto while the radial wires are arranged and secured in place, the block or form having depressions or recesses in its surface to enable the operative to tie the two sets of wires together with a fine thread-like binding or tie wire. This mode of procedure is slow and awkward, as the spaces for applying the binding-wires are very limited in extent, and, furthermore, the ends of the binders are sharp and frequently prick or scratch the fingers. When a bell-crown is to be made, other difficulties are encountered, because the top of the crown portion of the block overhangs its bottom, so that some of the fore-and-aft wires must be left unfastened to enable the frame to be removed from the form.

In my present invention I have provided a series or group of laterally-separated members to support and position the round-and-round wires of the hat-frame, said members being upturned and fixedly mounted on a suitable base. The round-and-round wires for the crown having been applied, the operator takes a piece of wire of the proper length, lays it across the top of the crown and bends

it down and twists it around the topmost round-and-round wire. This operation is repeated until a sufficient number of fore-and-aft wires have been positioned, they crossing each other at the center of the crown, the last one being twisted around the others at the crossing-point. Thereafter the free end of each wire is taken and twisted around the next round-and-round wire, and then the next fore-and-aft wire is secured in like manner, till the final attachment of all such wires is effected with the lowermost round-and-round wire of the crown, and then said fore-and-aft wires are secured in a similar manner to the round-and-round wires of the brim or the coronet, according to the character of the hat-frame to be made. The bending or twisting of the fore-and-aft wires about the round-and-round wires is readily effected, because there is an entirely clear and open space between each point of support for a round-and-round wire, and the use of separate binding or tie wires is eliminated. A much stiffer hat-frame is thereby made, more securely held together, and its construction is greatly simplified and facilitated.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a perspective view of a form embodying my invention with a completed wire hat-frame thereon, the particular type of hat-frame shown having a bell-crown and a coronet. Fig. 2 is an enlarged top or plan view of the form shown in Fig. 1. Fig. 3 is an enlarged detail, in side elevation, of supporting devices for the crown and coronet, such as are illustrated in Fig. 1. Figs. 4 and 5 are enlarged details in side elevation of means for sustaining round-and-round brim-wires and giving the desired flare thereto. Fig. 6 is a perspective view, on a small scale, of a form set up for the construction of a hat-frame having a straight crown and flat brim, the frame being shown thereon; and Fig. 7 is an enlarged detail of a portion of the form illustrated in Fig. 6.

It may be said that a coronet is a particular

form of brim, for ordinarily speaking the brim of a hat-frame is that portion extended outward and laterally from the base of the crown, and it may be flat, flared, or bent; but if the brim be bent or upturned sharply around the crown it is then termed a "coronet."

The wires used in making hat-frames are usually stout, but flexible, and covered with silk or other suitable material by winding thereupon.

Referring to Figs. 1 and 2, the form is shown as supported upon a circular base 1, preferably made of wood and serving to rigidly sustain the devices on which the frame is made, and as the form illustrated in Fig. 1 is arranged for a bell-crown and coronet I will describe it in detail. Upon the base I arrange a group of circularly-arranged upright supports, shown as posts 2, secured rigidly to the base in any suitable manner, as by inserting their lower ends in holes or sockets 3, Figs. 4 and 5, and gluing them therein. Small-headed pins 4 are driven into the tops of the posts, which latter are preferably made of wood. A second group of upright posts or supports 5 are arranged upon the base 1 outside the posts 2, their upper ends projecting above the posts 2 a distance corresponding to the height of the crown of the hat-frame to be made, and headed pins 6 are fixed in the tops of said posts 5.

Referring to Fig. 2 it will be seen that one of the posts, as 5^x, is set out from its corresponding post 2, so as to give a peak-like extension to the top of the crown, whereas if the crown was to be circular the offset post would not be necessary. An upturned hook 6^x is secured to this post 5^x at the height of the pins 4 for a purpose to be described. A series of wings 7 are rigidly secured to the base with their inner upright edges adjacent the posts 5 the tops of the wings being shown as substantially on a level with the tops of the inner group of posts 2. (See Figs. 1, 3, 4, and 5.) These wings are not truly radial with relation to the center of the base 1; but they are parallel to true radii, and one upright face of each wing is adjacent a true radial plane, the wings serving as guides for the operator in applying the fore-and-aft wires, as will appear hereinafter.

When a coronet is to be formed, the supporting means therefor will be mounted on the wings, and, referring to Figs. 1, 2, and 3, I have shown an upright arm 8, fulcrumed on each wing at 9, the outer side of each arm having pins 10 inserted therein. The arm is adjusted as to its angularity by a stop-pin 11, which is inserted in one of a series of holes made in the wing above the fulcrum 9 and acting on the inner edge of the arm, so that by changing the angularity of the arms the flare of the coronet is secured.

Having thus described in detail one em-

bodiment of my invention, I will explain the mode of using the same in constructing a twisted-wire hat-frame thereon, and I will designate the round-and-round wires by letters *c c'*, &c., and the fore-and-aft wires as *f f'*, &c., having reference to Fig. 1.

Taking a piece of covered wire of suitable length, the operator passes it around the pins 4 at the tops of the posts 2 and unites the ends in usual manner, thereby making the round-and-round wire *c* at the base of the crown, technically termed the "head-wire." Similarly the wire *c'* is laid to form the top corner of the crown by passing the wire around the pins 6 on the posts 5 and 5^x, the latter giving the peak to the crown, the wire *c'* being termed the "crown-wire." A round-and-round wire *c²* is then positioned outside the posts 5 and resting on the tops of the wings 7, such wire *c²* at the peak being held by the upturned hook 6^x, and a second wire, *c³*, may now be positioned by passing it around outside of the arms 8 and resting it on the wings, the wires *c²* and *c³* forming the base of the coronet. If desired, however, the wire *c³* may be applied subsequent to applying the fore-and-aft wires and securing them to the wires *c, c'*, and *c²*, the precise order of procedure being immaterial. The arm on the wing adjacent the post 5^x may be swung out more than the other arms, as at 8^x, to properly peak the coronet. The operator now takes a piece of wire cut to the proper length, lays it across the wire *c'* at the top of the crown in the position indicated by the broken line in Fig. 2, and twists the wire *f* around the crown-wire *c'* at the points 60, Fig. 1, adjacent the opposite pair of supports 5, pushing the free ends of the wire downward out of the way, thereby applying one of the fore-and-aft wires. In a similar manner the other fore-and-aft wires *f' f²*, &c., are applied and secured by twisting around the wire *c'*, the wires *f f'*, &c., crossing each other at the center of the crown at *f^x*, Fig. 1. When all have been secured, the operator takes up one free end after another and twists it around the head-wire *c*, as at 61, then bends the fore-and-aft wire outward and twists it around the round-and-round wires *c² c³* at 62 and 63, respectively. Now the round-and-round wires *c⁴ c⁵* of the coronet are laid, passing around the outside of the arms 8 and 8^x and being vertically positioned by the pins thereon, after which the ends of the fore-and-aft wires are bent upward and twisted around wires *c⁴* and *c⁵* at 64 and 65, respectively, completing the hat-frame. By drawing the round-and-round wires over the heads of the various pins which position them the completed frame can be removed intact from the form, even when the frame has a bell-crown, because the crown-wire supports are located outside of the head-wire supports and extend above them. The

wings not only act as supports, but they also serve as guides to direct the operator in properly positioning the fore-and-aft wires.

In Fig. 3 I have indicated the several round-and-round wires in position by small circles, the fore-and-aft wires being omitted to avoid confusion, and in Fig. 1 the reference characters have been applied where the least confusion would result.

Referring to Fig. 6, the form is arranged for making a straight-crown and flat-brim hat-frame, and it will be seen that the inner group of posts 2 (shown in Figs. 1 and 2) are unnecessary, and hence are omitted, a single group, as 15, being mounted on the base 1, with wings 17, substantially like the wings 7 heretofore described. Pins 16 are arranged in pairs on the outer sides of the posts 15, as clearly shown in Fig. 7, to receive between them the three crown-forming round-and-round wires $c^8 c^9 c^{10}$, the pins being omitted in Fig. 6 to avoid confusion. Pins 18 are set into the tops of the wings 17 to position the round-and-round wires $c^{11} c^{12}$ forming the flat brim, said wires being supported vertically by the tops of the wings.

I have not shown the fore-and-aft wires in Fig. 6, as they are applied in precisely the manner hereinbefore described.

Sometimes it is desired to give the brim a flare or bend, which may be uniform throughout, or it may vary, and to provide for this I have arranged means which can be applied to the tops of the wings to secure the desired flare of the brim. In Fig. 4 I have shown one arrangement, the same consisting of a strip 20 of rather thick brass, which has positioning-pins 21 driven thereinto to hold the round-and-round brim-wires in place. The strip 20 is bent to the desired curvature for the flare of the brim, and it is then secured by a pin 22 at its inner end to the wing, each wing being provided with such a strip, and the strips can be bent to the same curvature, or they may vary in curvature, as desired.

Instead of using metallic strips pieces of wood, as 25, may be set on the tops of the wings, as shown in Fig. 5, and secured by a pin 28, the upper edge 26 of each piece being given the desired curve, pins 27 being driven thereinto to position the brim-wires.

My invention is not restricted to the precise construction herein shown and described, as the same may be varied or rearranged in different particulars by those skilled in the art without departing from the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a form for making twisted-wire hat-frames, a base, two groups of circularly-arranged and laterally-separated upright posts fixedly mounted thereon, the outer group of

posts being higher than the inner group, and guide-pins on the upper ends of said posts, to support in proper position the round-and-round wires of the crown of a frame while the fore-and-aft wires are attached thereto.

2. In a form for making twisted-wire hat-frames, a base, upright posts rigidly mounted thereon and provided with means to support the head-wire of a hat-frame, and a second series of posts rigidly mounted on the base outside of and extended above the head-wire-supporting means, and means on said second series of posts to support the crown-wire of a hat-frame.

3. In a form for making twisted-wire hat-frames, a base, a plurality of groups of upturned, circularly-arranged and laterally-separated members rigidly mounted thereon to detachably support the crown and head wires of the hat-frame while the fore-and-aft wires are positioned, upright radial brim-supporting means fixedly mounted on the base external to said circularly-arranged members, and detachable devices to adjust said means to the flare of the brim.

4. In a form for making twisted-wire hat-frames, a base having a series of upright, elongated wing-like brim-supporting members fixedly mounted thereon, substantially parallel to lines radiating from the center of the base, an upright post fixedly mounted on the base at the inner end of each of said members, each post having pins thereon to detachably support the crown-wire of a hat-frame, and means located inside said posts and below the pins thereon to support the head-wire of the crown.

5. In a form for making twisted-wire hat-frames, a base, inner and outer groups of rigid upturned posts fixedly mounted thereon and provided with pins to detachably engage and position the round-and-round wires of a hat-frame, the pins on the outer group being farther from the base than the pins on the inner group of posts, to thereby support said wires at laterally-separated points and enable the fore-and-aft wires to be applied and secured in place, upright wing-like members fixedly mounted on the base adjacent the outer group of posts and extended outwardly therefrom, adapted to sustain and position brim-wires while the fore-and-aft wires are secured thereto, and means adapted to be mounted on the tops of the wings to vary the flare of the brim-wires of the hat-frame.

6. In a form for making twisted-wire hat-frames, a base, inner and outer groups of rigid upturned posts fixedly mounted thereon and arranged in substantially circular formation, the outer group of posts being higher than the inner group, pins on said inner and outer posts to detachably engage and position respectively the head and crown wires of the crown of a hat-form, wings mounted on the

base and extended outward from the outer group of posts, and angularly adjustable, upright supports on said wings to cooperate with and sustain in position round-and-round
5 brim-wires while the fore-and-aft wires are secured thereto.

In testimony whereof I have signed my name

to this specification in the presence of two subscribing witnesses.

WINTHROP M. JAMESON.

Witnesses:

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