

No. 768,381.

PATENTED AUG. 23, 1904.

T. K. LEE.

WOOL COMBING MACHINE.

APPLICATION FILED JUNE 1, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

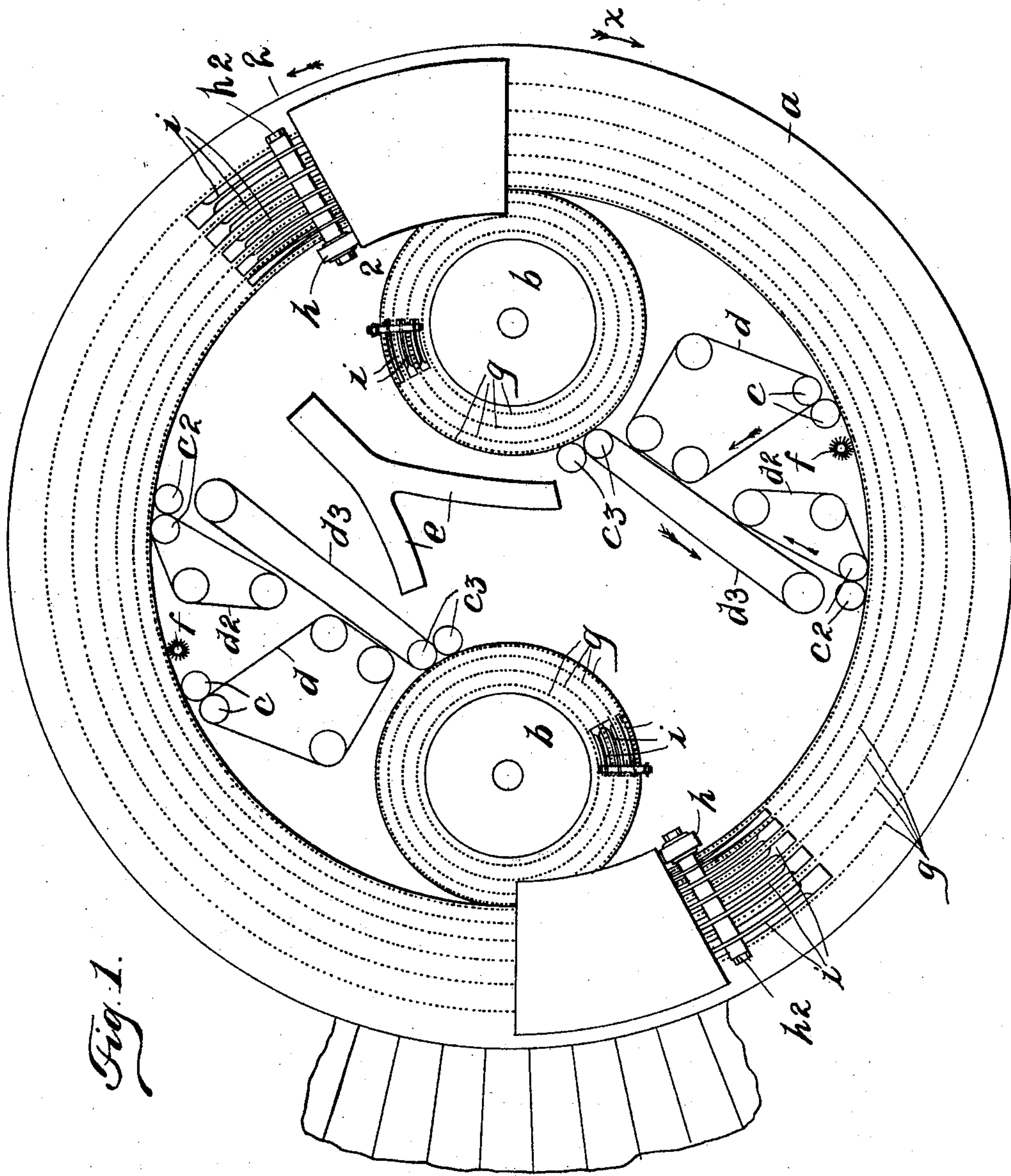


Fig. 1.

WITNESSES

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J. A. Stewart

INVENTOR

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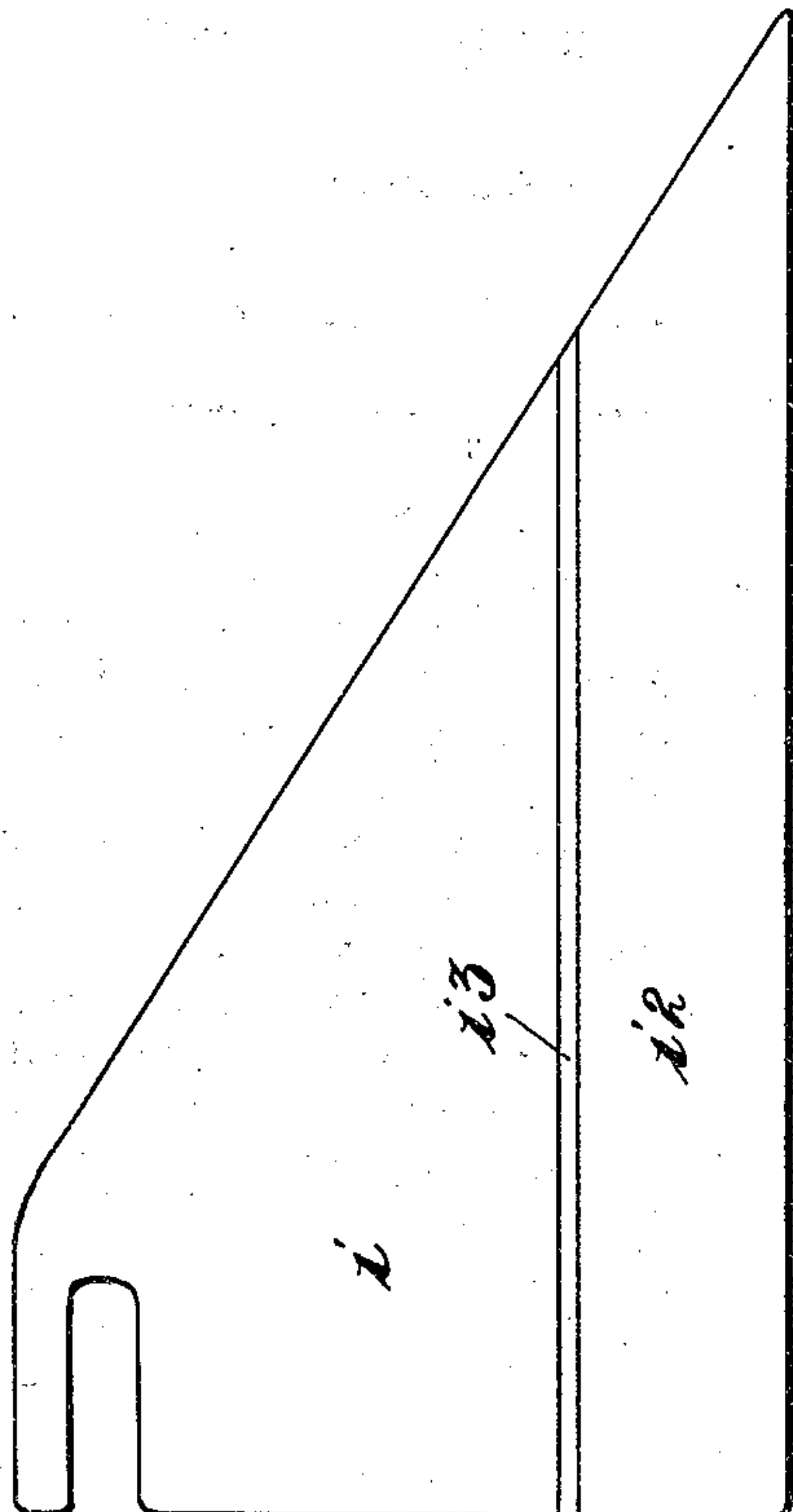


Fig. 3.

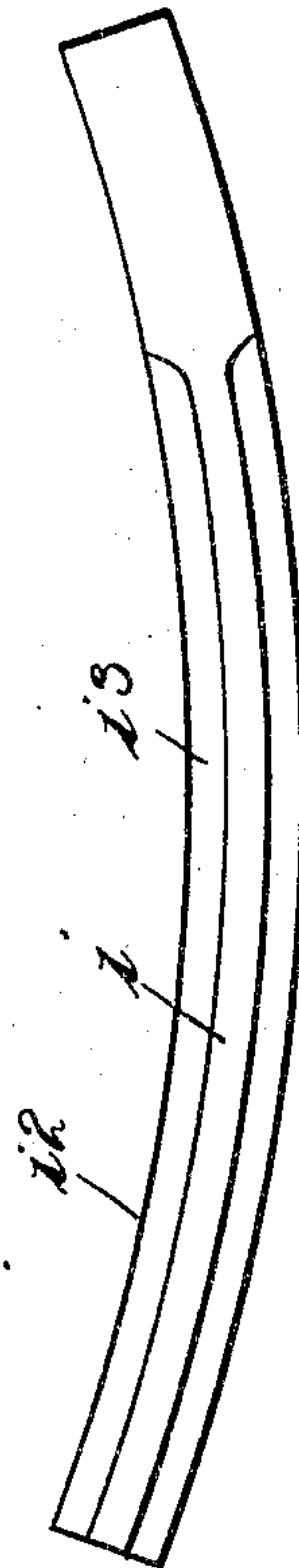


Fig. 4.

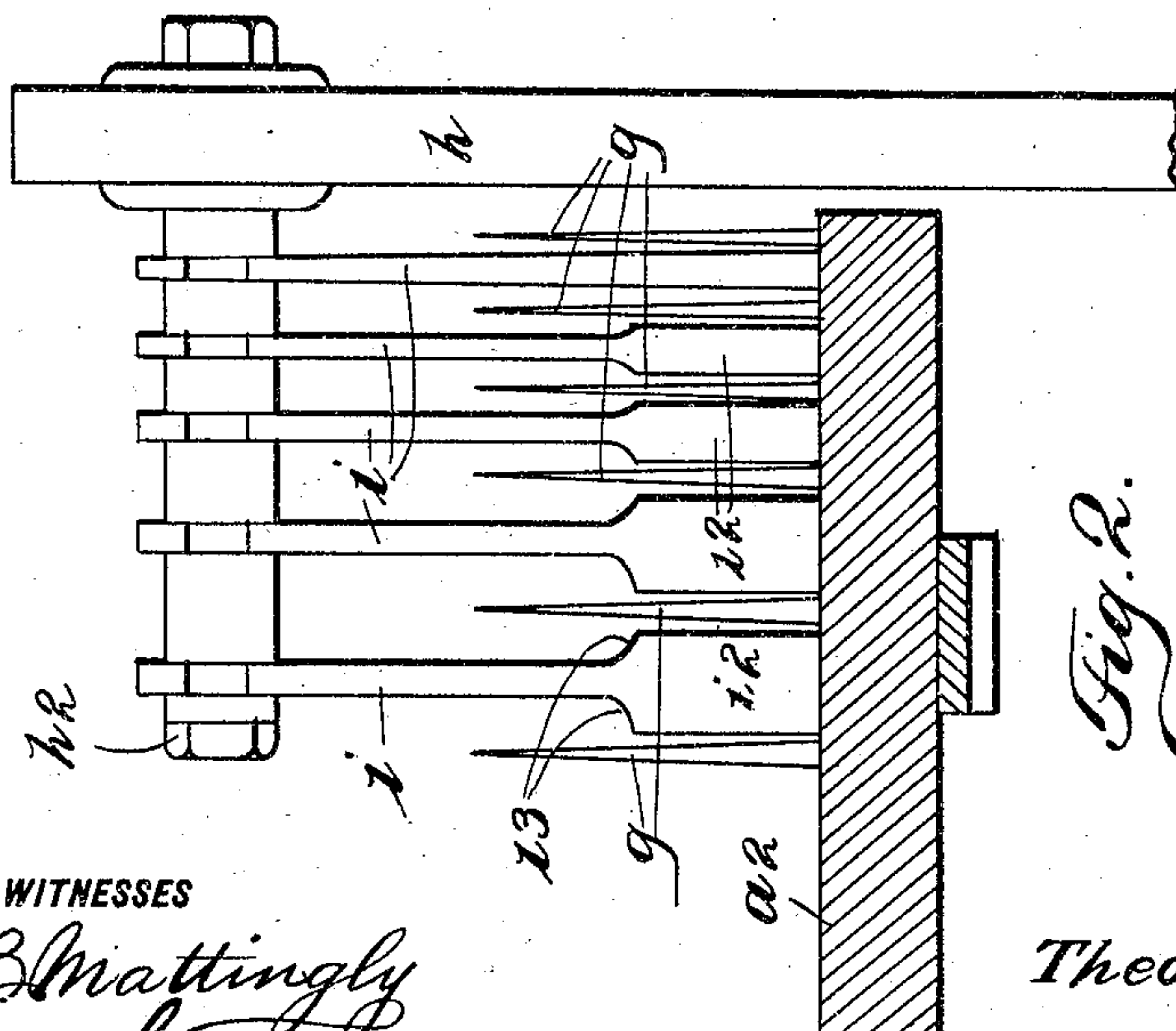


Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

THEODORE K. LEE, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF
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WOOL-COMBING MACHINE.

SPECIFICATION forming part of Letters Patent No. 768,381, dated August 23, 1904.

Application filed June 1, 1904. Serial No. 210,654. (No model.)

To all whom it may concern:

Be it known that I, THEODORE K. LEE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Wool-Combing Machines, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to wool-combing machines, and particularly to machines of this class known as "Noble's combs," and the particular part or parts of machines of this class to which this invention relates are the plows employed for the purpose of raising the fiber above the points of the annular rows of comb teeth or pins, said plows being so formed that the points of the teeth or pins will not strike against the sides thereof and thus cut furrows into said plows and also injure the pins themselves.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a diagrammatic plan view of a complete machine of the class to which my invention relates; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a side view of one of the plows which constitute the subject-matter of this invention, and Fig. 4 a plan view thereof.

In the drawings forming part of this specification, reference being made to Figs. 1 and 2, I have shown a machine of the class herein referred to, and which is known as a "Noble comb" or "combing-machine," and in these drawings, *a* indicates the larger and outer annular comb; *b*, the usual inner and smaller annular combs; *c*, the pinching-rollers that draw the long fibers from the larger and outer comb *a*; *c*², the pinching-rollers that draw the shorter fibers from the annular comb *a*; *c*³, the pinching-rollers which take the wool from the combs *b*, and *d*, *d*², and *d*³ are the belts which carry the wool from the pinching-rollers *c*, *c*², and *c*³ to discharge devices or

tubes *e*, and *f* porcupine-rollers, which operate to draw out the short wool from the comb *a*, so that the pinching-rollers *c*² can grasp the same. All these parts are of the usual construction in machines of this class and form no part of this invention.

The movable part of the comb *a* comprises an annular plate *a*², (see Fig. 2,) which is rotated in the direction of the arrow *x* in Fig. 1, and this plate is provided with the usual annular rows *g* of vertically-arranged teeth or pins, six of these rows being shown, and arranged at opposite points in the form of construction shown, and within the comb *a* are supports *h*, having arms *h*², which carry the plows *i*, between which the teeth or pins *g* move, said plows being stationary. All these parts are also of the usual or well-known construction except the plows *i*.

The plows *i* as heretofore made have substantially the same thickness from the top to the bottom thereof, and by reason of this fact the teeth or pins *g* or the points thereof would in the operation of the machine be thrown into contact with or press upon the opposite sides of said plows, and this would cause the said teeth or pins or the points thereof to form furrows in the opposite sides of the plows, and the points of said teeth or pins would also be injured or destroyed, and this would, as will be understood, injuriously affect the operation of the machine and also render necessary the frequent renewal of the teeth or pins *g* and also the renewal of the plows *i*. The above operation would also result in forming sharp cutting edges on the teeth or pins *g*, and this would result in cutting the fiber of the wool.

In my improvement the top portion of the plows *i* is formed thinner than the base thereof, the base portion of said plow being shown at *i*² in Figs. 2, 3, and 4, and this construction forms on the opposite sides of the plows longitudinal shoulders *i*³, and the base portion *i*² of the plows is preferably of a vertical height approximately equal to about one-half of the height of the teeth or pins *g*. When the plows *i* are made in the manner shown and described, the points of the teeth or pins *g* cannot be

thrown against or into contact with the side thereof, and the grooving or furrowing of the side of the plow by the points of the teeth or pins and the injury thereto hereinbefore referred to is avoided.

The inner, annular, and smaller combs *b* or the plows *i* thereof are formed in the same manner as the plows of the outer annular comb *a*, and by means of my improvement I provide a plow or plows which are so formed that the points of the teeth or pins in the combs in connection with which said plows operate will not come in contact with the opposite sides of the plows, and the teeth or pins themselves are not injured in the operation of the machine, and said parts will last much longer than when made in the usual manner, and the operation of the machine is also much improved and rendered more effective.

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

1. A plow for wool-combing machines of the class described, the base portion of said plow being thicker than the top portion thereof, substantially as shown and described.

2. A plow for wool-combing machines of the class described, the base portion of said plow being thicker than the top portion thereof

whereby longitudinal shoulders are formed at the opposite sides of the plows, substantially as shown and described.

3. A wool-combing machine of the class described provided with annular combing-plates having annularly-arranged rows of teeth or pins, and plows mounted between said rows of teeth or pins and the base portions of which are thicker than the top portions, substantially as shown and described.

4. A wool-combing machine of the class described provided with annular combing-plates having annularly-arranged rows of teeth or pins, and plows mounted between said rows of teeth or pins and the base portions of which are thicker than the top portions, the height of the thickened base portion of said plows being such that the points of the teeth or pins project above the same, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 28th day of May, 1904.

THEODORE K. LEE.

Witnesses:

F. A. STEWART,
C. J. KLEIN.