

No. 811,407.

PATENTED JAN. 30, 1906.

H. F. KEIL.
FABRIC FOR AIR GOODS.
APPLICATION FILED JUNE 12, 1905.

2 SHEETS—SHEET 1.

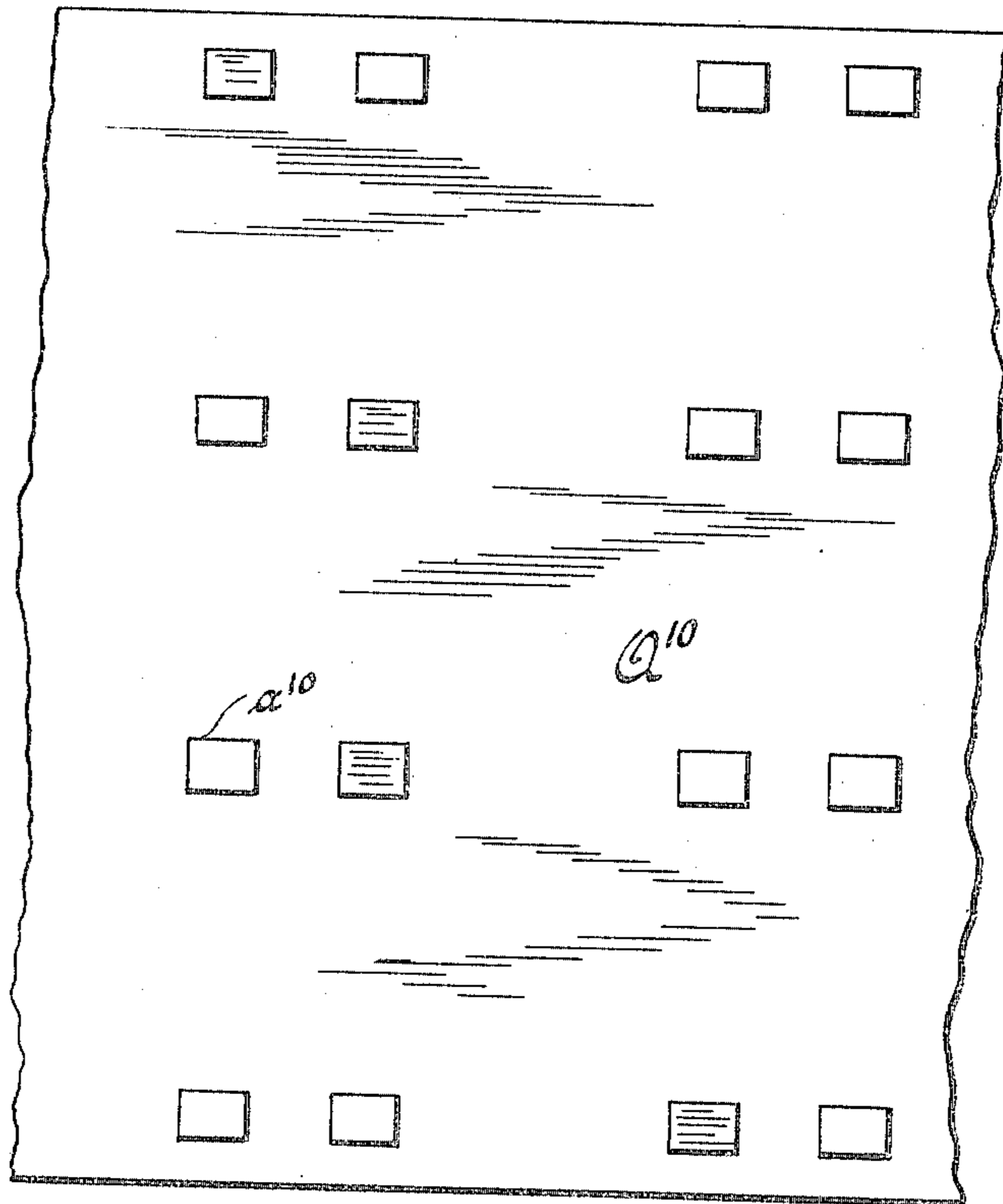


Fig. 1.

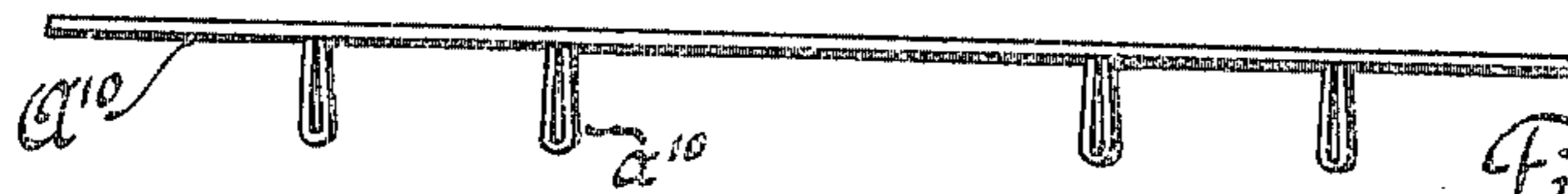


Fig. 2.

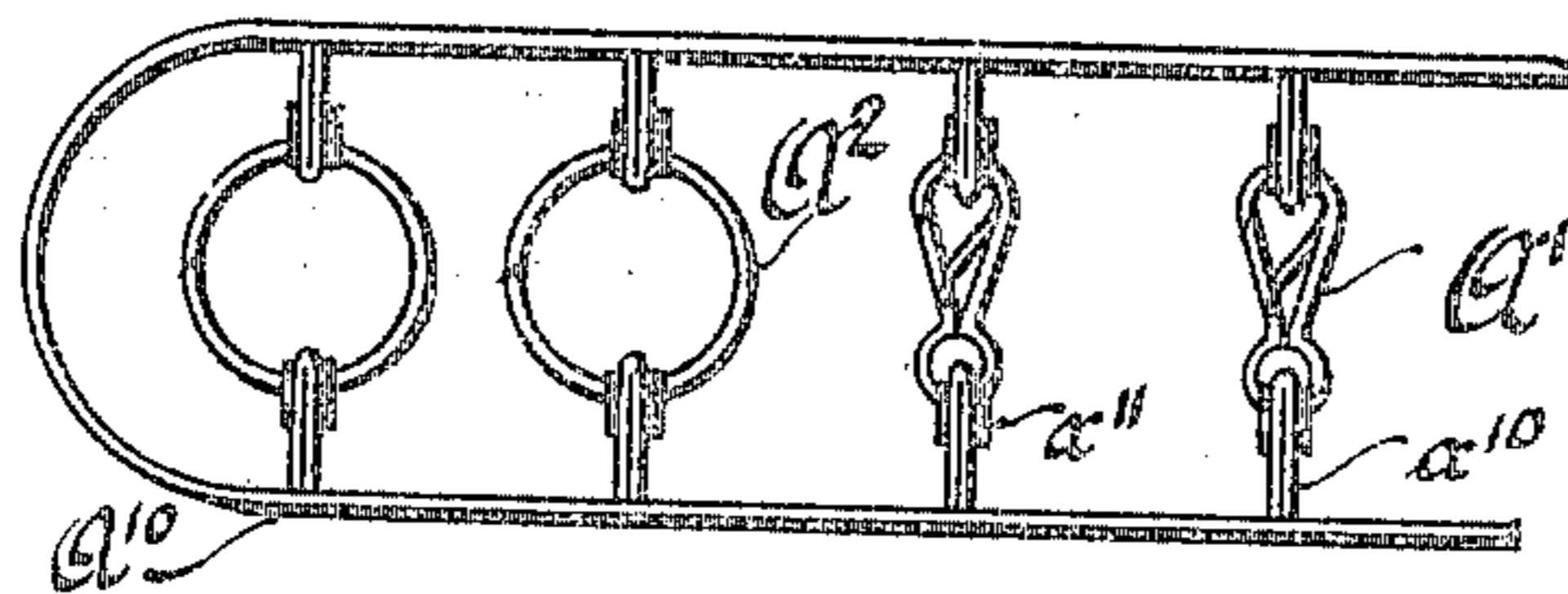


Fig. 3.

WITNESSES:
S. Herzog
H. M. Ball

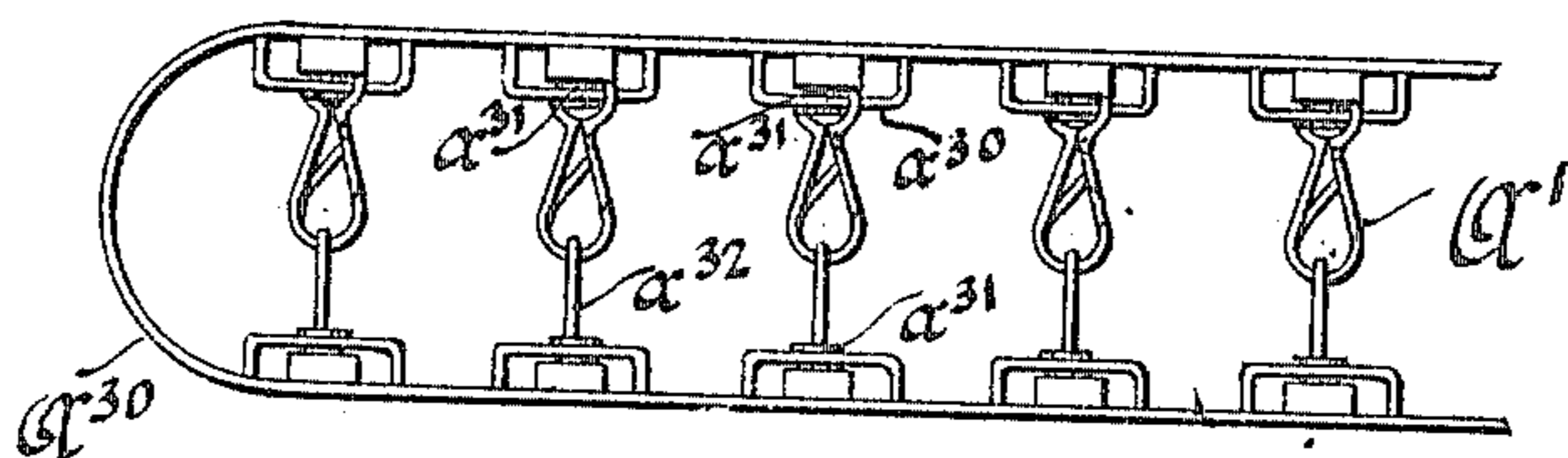
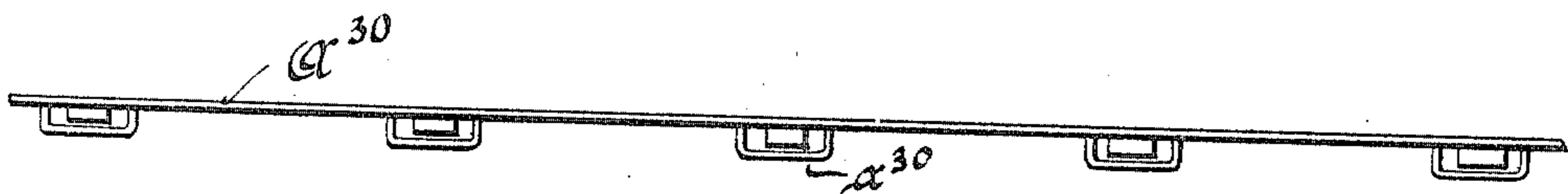
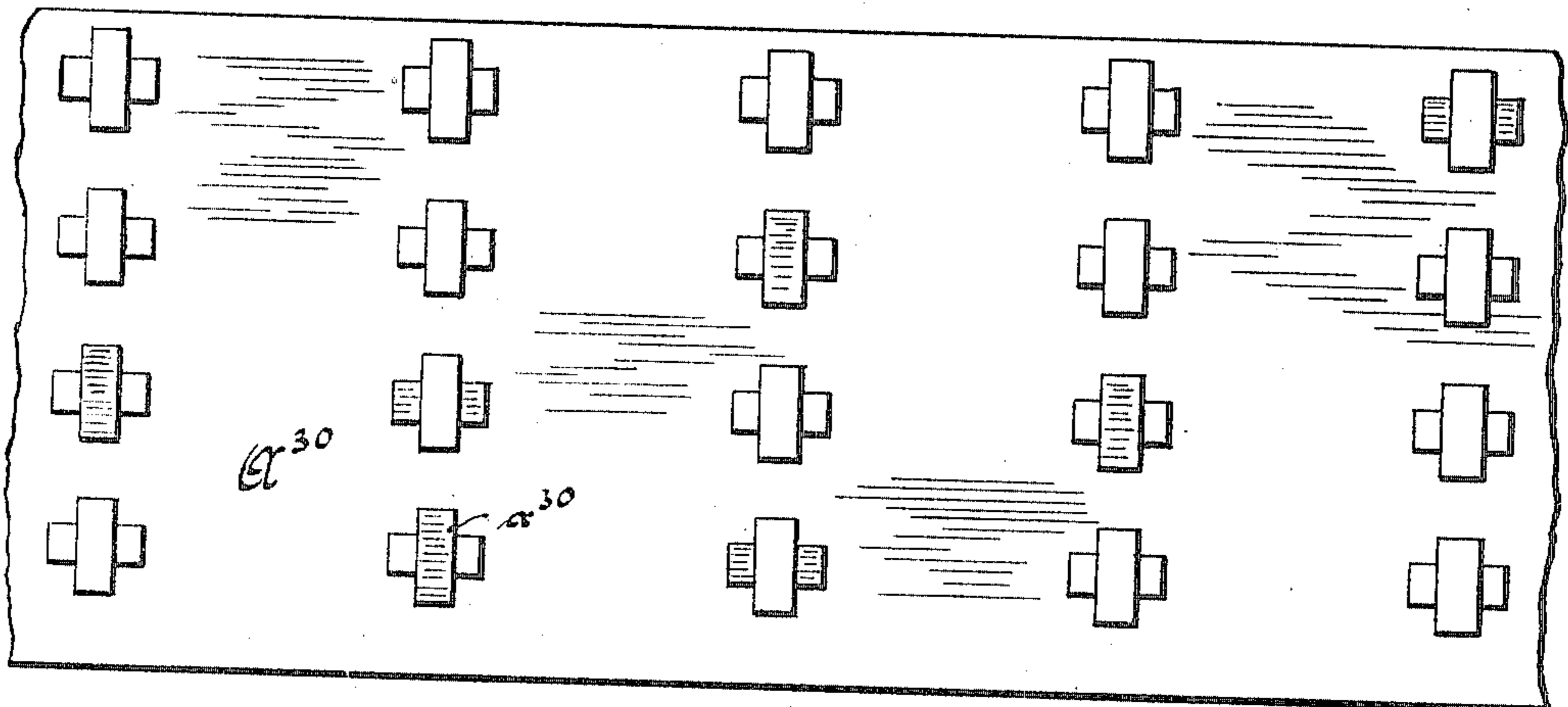
H. F. Keil INVENTOR
BY his ATTORNEY *J. O. Fowler* *J.*

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

FABRIC FOR AIR GOODS.

No. 811,407.

Specification of Letters Patent.

Patented Jan. 30, 1906.

Application filed June 12, 1905. Serial No. 264,950.

To all whom it may concern:

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Fabric for Air Goods, of which the following is a specification, the same being a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to inflatable and deflatable beds, cushions, and analogous devices, and has especial relation to the construction of a fabric for mattresses and the like, which mattresses ordinarily have tie-pieces or stays extending from the upper and lower portions thereof designed to be used with a view of keeping the parts of the cushion, &c., in proper relative position and of strengthening the entire body of the same, the said beds, &c., being easily portable and when inflated being comfortable, so as to readily conform to the different positions taken by the user, which beds, &c., will retain the air under all normal conditions; and it has for its object the provision of an article of the class described which will be economical to manufacture and efficient and durable in practical use.

With this object in view the invention consists in certain novel features of construction and arrangement of parts, all of which will be hereinafter described, and specifically pointed out in the drawings which accompany and form a part of this specification, and in which—

Figures 1 and 4 represent plan views of fabrics for air goods constructed according to my invention. Figs. 3 and 6 are side elevations of the fabric shown, respectively, in Figs. 1 and 4, having oppositely-disposed stays attached together; and Figs. 2 and 5 are elevations looking sidewise at Figs. 1 and 4, respectively.

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

Referring particularly to the drawings, A¹⁰ denotes a fabric suitable to be used in the construction of inflatable beds, cushions, or like pneumatic devices made of suitable flexible sheet material. Heretofore stays or tie-bands for holding the upper and lower fabrics of a cushion, bed, &c., together have been

constructed independently of the said fabrics and separately applied to the fabric subsequent to the completion of the same, the said stays or tie-bands being ordinarily attached or fastened to the fabric after the same has been treated with a coating of an air-proof and preferably elastic material, as rubber. In a pneumatic mattress made according to my invention, however, the fabric and the ends of the stay are held together by means of flexible threads or filaments, as by having the said stay-ends woven in and forming a part of the said fabric, as in Figs. 1 to 3, where the stay-ends a¹⁰ are formed of loops of thread which are dropped in the process of weaving the fabric A¹⁰, which fabric and stay-ends are thus held together by means of flexible threads or filaments. Small rings a¹¹ are passed through the said loops, which, together with suitable connecting means, as rings A² or hooks A', serve to hold the oppositely-disposed pairs of stay-ends together.

In the fabric A³⁰ (shown in Figs. 4 to 6) are woven flat cross loops or stays a³⁰ for use in cases where great strength of material is required. Small rings or rivets a³¹ serve as a means for attachment of the cord a³² and snap-hooks A' to the oppositely-disposed pairs of stay-ends a³⁰.

My fabric may be treated with a coating of air-proof material, as rubber, in any suitable or desired manner. The said fabric will be found to be very economical in construction and also very durable and serviceable in use and inexpensive to be made up into cushions, mattresses, and the like.

Having thus described and ascertained the nature of my said invention and in what manner the same is to be performed, it being kept in mind that in law the substitution of equivalents works no variation in the substance of the same, I would have it understood that what I claim as my invention is—

1. In air goods a series of loops of thread dropped at intervals to form a stay-end, said loops being held together between their ends by flexible threads or filaments.

2. In a fabric for air goods a series of loops of thread dropped at intervals to form a stay-end, said loops being held together between their ends by flexible threads or filaments, in combination with a coating of air-proof material applied to the said fabric.

3. In air goods a stay-end composed of two

parts at right angles to each other, each of
said parts consisting of a series of loops of
thread dropped at intervals to form the stay-
end, said loops being held together between
5 their ends by flexible threads or filaments.

4. In a fabric for air goods a stay-end com-
posed of two parts at right angles to each
other, each of said parts consisting of a series
of loops of thread dropped at intervals to
10 form the stay-end, said loops being held to-
gether between their ends by flexible threads

or filaments, in combination with a coating
of air-proof material applied to the said fabric.

In testimony of the foregoing specification
I do hereby sign the same, in the city of New 15
York, county and State of New York, this
22d day of May, 1905.

HENRY FRANCIS KEIL.

Witnesses:

WM. J. GRAHAM,
JOSEPH FETYK.