

(No Model.)

2 Sheets—Sheet 1.

A. STENDAHL.

APPARATUS FOR PILING OR STACKING LUMBER.

No. 563,626.

Patented July 7, 1896.

Fig. 2.

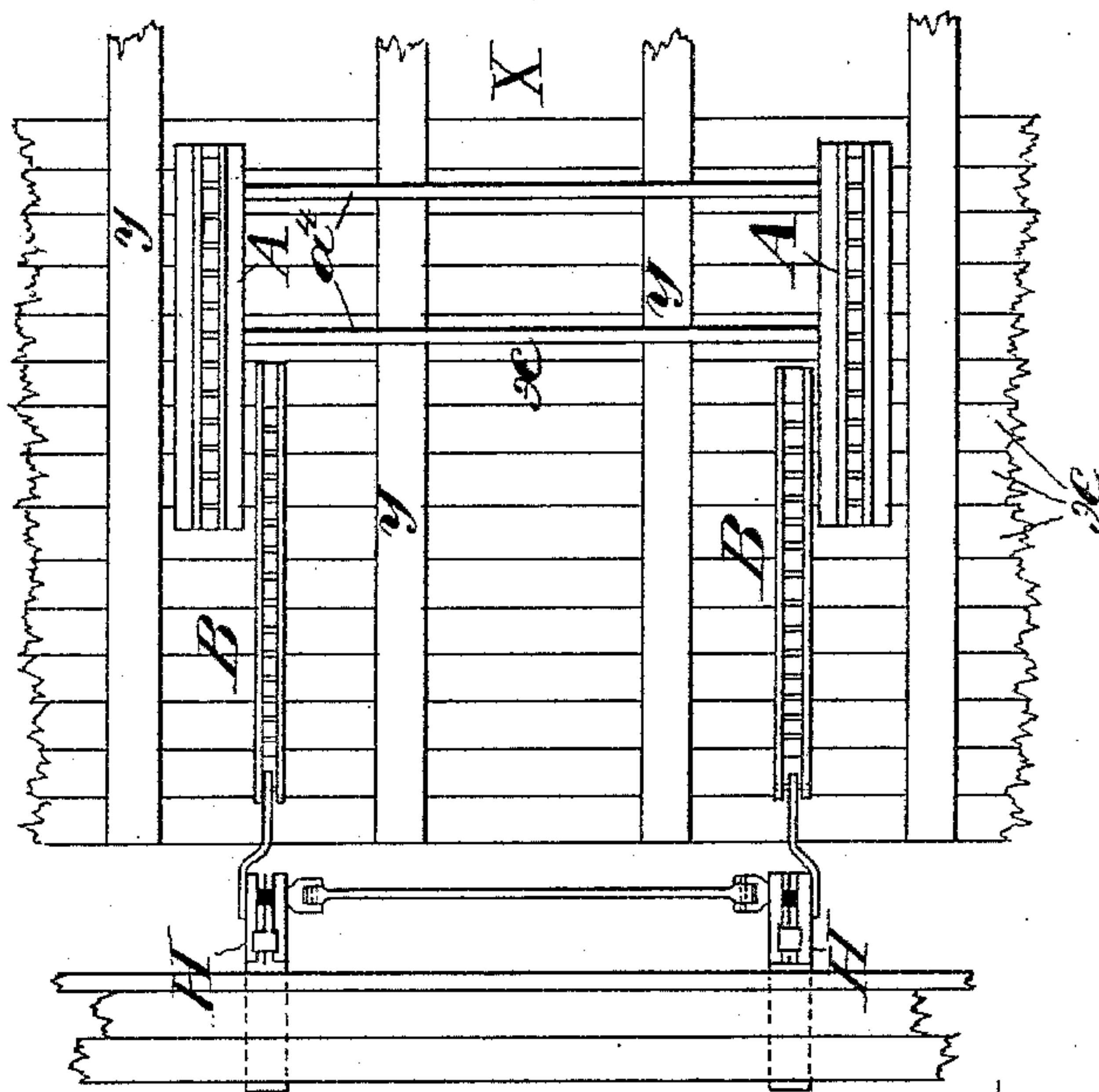
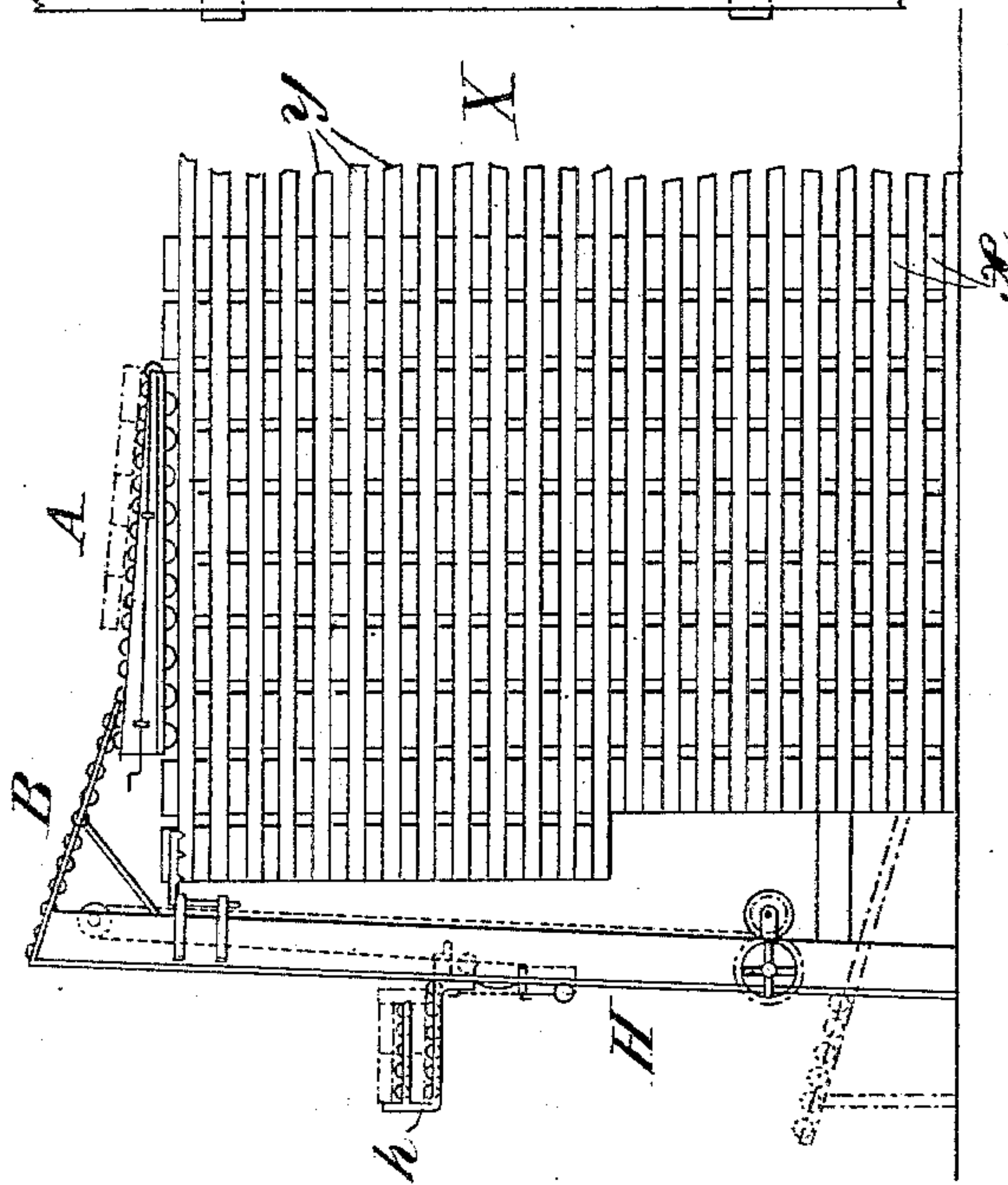


Fig. 1.



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Fig. 5.

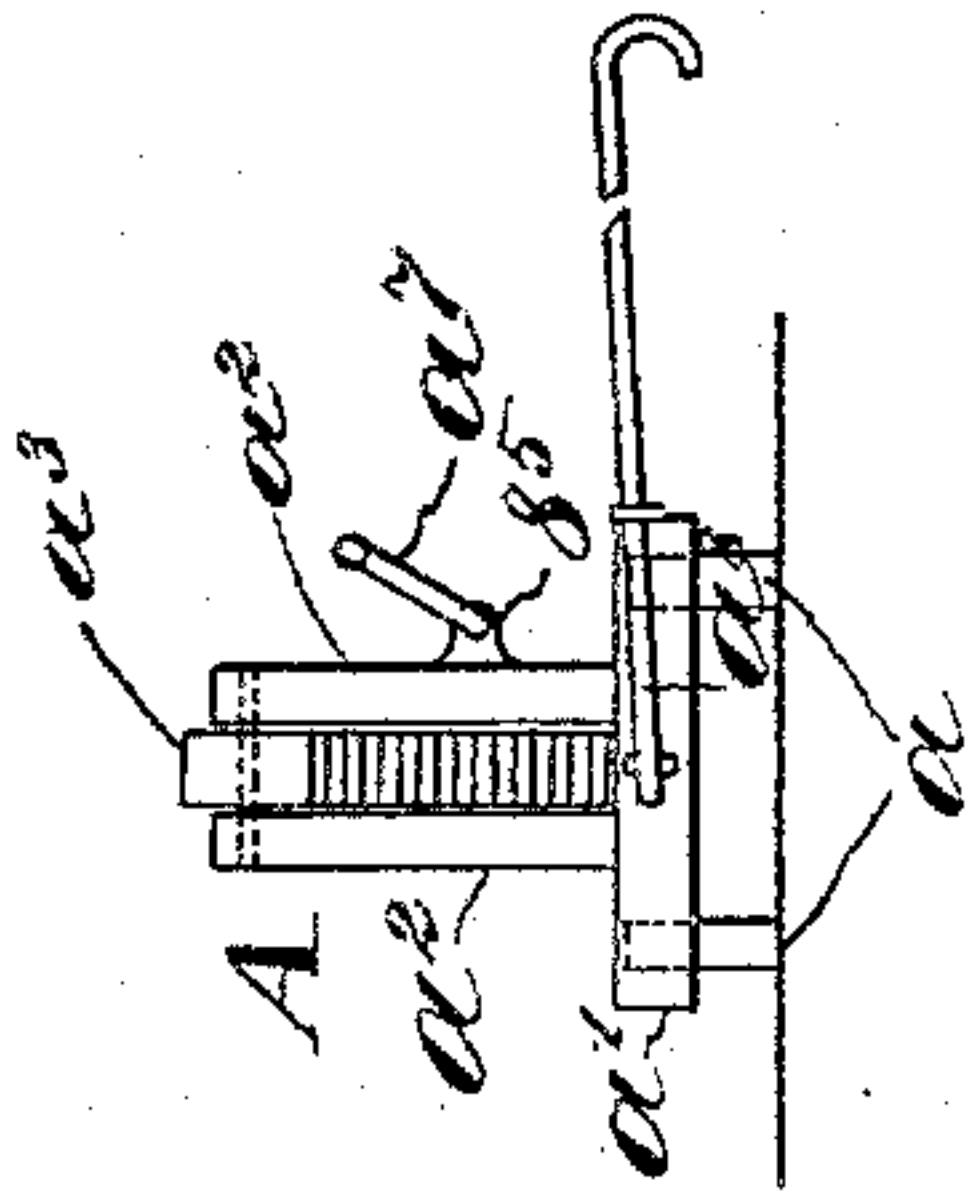


Fig. 3.

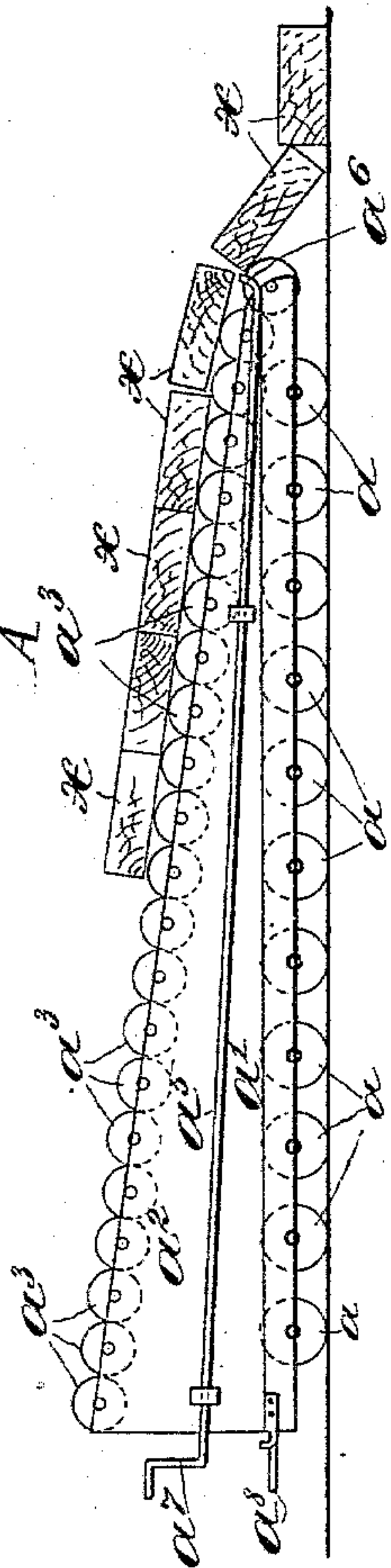
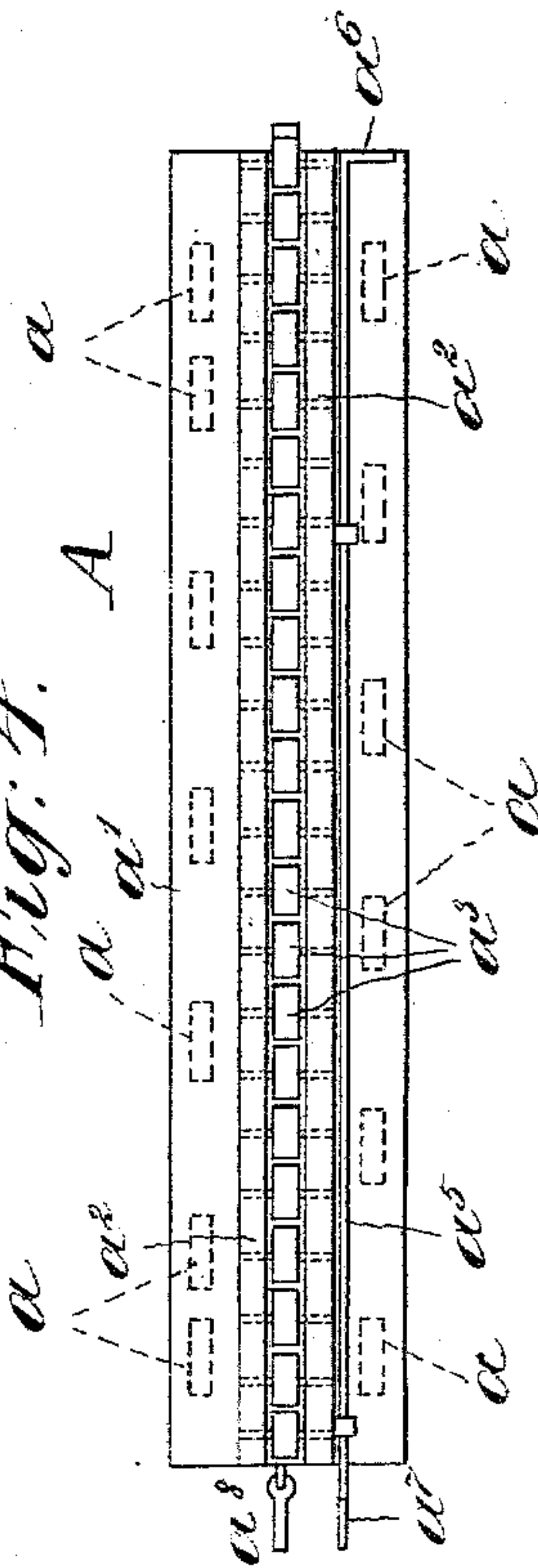


Fig. 4.



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# UNITED STATES PATENT OFFICE.

ANDERS STENDAHL, OF ALA, SWEDEN.

## APPARATUS FOR PILING OR STACKING LUMBER.

SPECIFICATION forming part of Letters Patent No. 563,626, dated July 7, 1896.

Application filed April 17, 1896. Serial No. 587,904. (No model.)

*To all whom it may concern:*

Be it known that I, ANDERS STENDAHL, a subject of the King of Sweden and Norway, residing at Ala, near Ljusne, Sweden, have invented certain new and useful Improvements in Apparatuses for Piling or Stacking Lumber, of which the following is a specification.

My invention relates to a mechanism or apparatus for use in piling or stacking lumber, and especially boards, planks, and the like.

Heretofore it has been the common practice in stacking lumber for one set of workmen to pass up or carry up the boards to another set on the pile, who place them properly on the stack. I employ a hoisting mechanism or lift for elevating the lumber, and another apparatus on the pile and operating, in connection with the lift, for transporting and properly laying or placing the boards or other lumber. My invention resides particularly in this latter device, which I call a "spreader."

In the drawings which serve to illustrate my invention, Figure 1 is a side elevation, and Fig. 2 a plan, illustrating, diagrammatically, a pile or stack of lumber in the course of being piled up, the lifting or hoisting apparatus, as well as the spreader, being shown in these views on a small scale. Fig. 3 is a side elevation of one of the carriages of the spreader. Fig. 4 is a plan of the same, and Fig. 5 is an end elevation of the same.

X represents a pile or stack of lumber,  $x$  being the boards therein and  $y$  the balks or strips separating each layer of boards to allow air to circulate between the layers for drying.

H represents, as a whole, the hoist by which the lumber is lifted to the level of the top of the pile. This hoist, as here shown, consists of an upright frame, a winch, a hoisting chain and pulley, and a carriage or platform  $h$  on which the lumber is carried up.

The spreader consists, usually, of two like carriage-sections A, arranged abreast and connected together and provided with a number of small wheels  $a$ . As this carriage is destined to run on the top of the pile of boards, the wheels  $a$  will, by preference, be staggered, as indicated in dotted lines in Fig. 4, so that the wheels of a pair shall not be opposite. This arrangement facilitates the movement of the rollers over the crevices between the

planks, as the two rollers of the pair cannot drop into the crevice simultaneously. On the base  $a'$  of the carriage are two side pieces  $a^2$ , slightly inclined on their upper faces, and in these are rotatively mounted a series of rollers  $a^3$ , which form an inclined upper bearing-surface of rollers on the carriage. The two carriages will, as stated, be connected together ordinarily, or by preference, by a tie or ties  $a^4$ , but this tie I do not consider essential. The carriage is mounted on the pile X, as seen in Figs. 1 and 2, with its higher receiving end toward the side where the hoist is situated. With the top of the side frames of the hoist are connected inclined roller-planes B, which rest on the top of the pile at their lower ends.

The carriage A is pushed up to the roller-planes B, substantially as seen in Figs. 1 and 2. The lumber is hoisted up and transferred to the roller-plane, down which the boards pass successively onto the carriage, on each side of which is a rocking bar  $a^5$ , having on its end next the lowermost end of the carriage a detent-lug  $a^6$ , which will be turned inward so as to catch and stop the first board and prevent it from passing off from the end of the carriage. The bar  $a^5$  may have a crank  $a^7$  at its other end for conveniently rocking it. After the carriage is loaded it is moved to position, the bar  $a^5$  rocked so as to throw the detent-lug  $a^6$  out of the way, and then the carriage is drawn across the pile, the boards dropping off into position, one by one, as indicated in Fig. 3. The empty carriage is then placed in position to receive another load. The carriage may be furnished with hooks  $a^8$  for securing it in position while receiving its load.

When the lumber to be piled is short, the two members of the carriage may be brought close together, or may be consolidated to form one carriage for such work.

The inclination of the sides or side pieces  $a^2$  may be varied, if desired.

Having thus described my invention, I claim—

1. The combination, in an apparatus for piling lumber, of a suitable hoist for elevating the lumber, a spreader for receiving the lumber and placing it properly comprising a low carriage with an inclined upper surface



made up of rollers, suitable wheels, and a detent for preventing the lumber from rolling off the lower end of the carriage, as set forth.

- 5 2. In an apparatus for piling lumber on a stack or pile, a spreader consisting of a carriage having a series of wheels, and inclined upper surface made up of rollers, and a detent device consisting of a rocking bar  $a^5$ ,  
10 mounted on the side of the carriage and having at its end a detent-lug  $a^6$ , adapted to be turned by the rocking of the bar into or out of the path of the pieces of lumber on the carriage, substantially as set forth.

3. The combination in an apparatus for 15 piling lumber, of a hoist for elevating the lumber, inclined roller-planes B, arranged at the top of the hoist to receive and deliver the lumber to the spreader, and the spreader A, substantially as set forth. 20

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ANDERS STENDAHL.

Witnesses:

ERNST SVANGVIST,  
CARL TH. SUNDHOLM.