

No. 677,260.

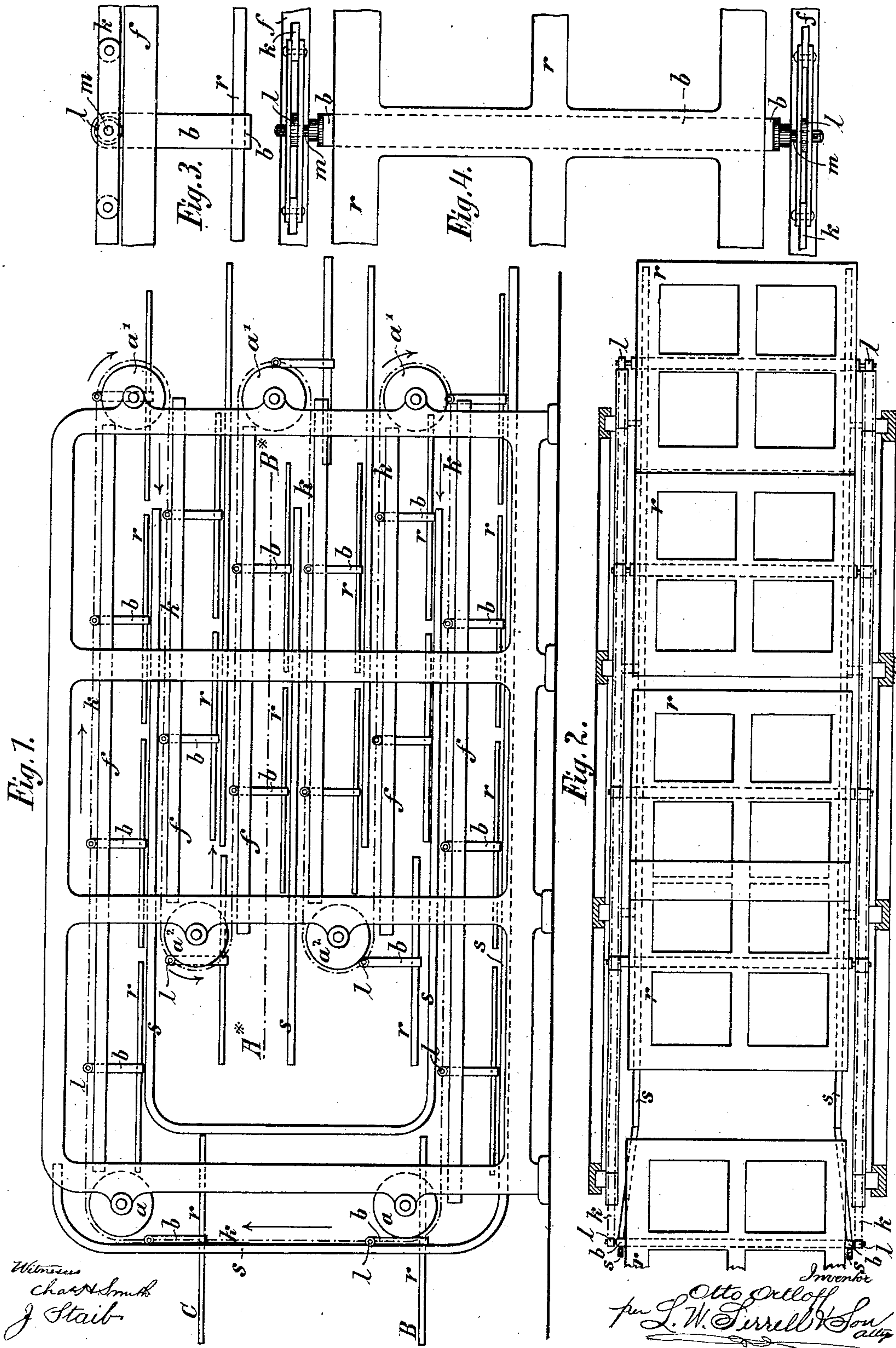
Patented June 25, 1901.

O. ORTLOFF.

APPARATUS FOR DRYING PAPER SHEETS.

(Application filed Dec. 11, 1899.)

(No Model.)



UNITED STATES PATENT OFFICE.

OTTO ORTLOFF, OF RADEBEUL, NEAR DRESDEN, GERMANY, ASSIGNOR
TO THE RADEBEULER MASCHINENFABRIK AUGUST KOEBIG, OF SAME
PLACE.

APPARATUS FOR DRYING PAPER SHEETS.

SPECIFICATION forming part of Letters Patent No. 677,260, dated June 25, 1901.

Application filed December 11, 1899. Serial No. 739,863. (No model.)

To all whom it may concern:

Be it known that I, OTTO ORTLOFF, a subject of the King of Saxony, residing at Radebeul, near Dresden, in the Kingdom of Saxony, German Empire, have invented a new and useful Improvement in Apparatus for Drying Paper Sheets and Similar Articles, of which the following is a specification.

My invention relates to improvements in apparatus for drying paper sheets and similar articles wherein the paper sheets are placed upon suitable suspended gravity-trays, which latter are caused to travel through a heated chamber and return to the starting-point by means of endless conveyer-chains and rollers and guides therefor.

My improvement embraces means for suspending the gravity-trays from the endless conveyer-chains, so that said gravity-trays will always maintain a horizontal position in traveling through the apparatus. I prefer to employ rollers, which are advantageously arranged between the links of the endless conveyer-chains and whose axles are the pivots from which the gravity-trays are suspended. I provide tracks upon which said rollers run and also guide-rails to insure uniformly-horizontal travel of the gravity-trays and rollers, around which the parts turn in changing the direction of travel of the parts.

In the drawings, Figure 1 is an elevation of my improvement. Fig. 2 is a plan view showing the frame-section. Fig. 3 is an elevation, and Fig. 4 a plan, showing, respectively, in detail the manner in which the gravity-trays are suspended.

In the drawings, a a' a'' are guide-rollers working in suitable bearings attached to the frame of the apparatus. The endless conveyer-chains pass over and are guided by these guide-rollers a a' a'' in the manner and direction shown by the arrows and dotted line k k , representing the endless conveyer-chains.

The suspended gravity-trays r are preferably made as an open frame of wood, connected to and supported by spread U-shaped straps b , the connection being on the horizontal portion of the trays. Said gravity-trays are provided at the upper ends of the vertical

parts of the said supporting-straps b with pivots m , which project outwardly and at right angles.

At suitably-equidistant intervals the links of the endless conveyer-chains are perforated to receive the pivots m , and pins at the outer ends of the pivots connect the same to the endless conveyer-chains. The rollers l are fitted over the pivots m , preferably between the links of the endless conveyer-chains, as shown in Fig. 4. ff are tracks upon which said rollers run. By this arrangement the weight of the endless conveyer-chains and also that of the straps and gravity-trays is carried by the rollers l , thereby reducing the friction of the moving parts to a minimum.

s s are guide-rails to prevent the suspended gravity-trays from knocking against one another and to insure a regular and uniform motion of the trays.

In the operation of the device, C, for instance, may be taken as the starting-point or place where the wet paper sheets are put on the gravity-trays. From C the wet sheets are carried up and into the apparatus, passing back and forth through a series of different levels in the heated compartment, as shown, and finally emerging at B, where the dry sheets are removed. The trays then ascend to the position C for wet sheets and to repeat the operation.

I claim as my invention—

1. In an apparatus for drying paper sheets and similar articles, the combination with pivoted links forming endless conveyer-chains, of axles therefor passing through and connected to the links of said chains about midway of their length, rollers between the links of the chain upon said axles and tracks upon which said rollers run and gravity-trays at spaced-apart intervals and suspended from said endless conveyer-chains at and by said axles, substantially as and for the purposes set forth.

2. In an apparatus for drying paper sheets and similar articles the combination with pivoted links forming endless conveyer-chains, of gravity-trays, pivots therefor passing through the endless conveyer-chains at about the central portions of the links thereof and

by which said trays are suspended, rollers
between the links of the conveyer-chains and
upon said pivots as axles, and tracks upon
which said rollers run, whereby the weight
5 of the endless conveyer-chains and also that
of the trays, is carried by said rollers, sub-
stantially as and for the purposes set forth.
In testimony that I claim the foregoing as

my invention I have signed my name, in pres-
ence of two witnesses, this 25th day of Novem- 10
ber, 1899.

OTTO ORTLOFF.

Witnesses:

WILHELM WIESENHÜTTER,
WENZEL ZENKER.