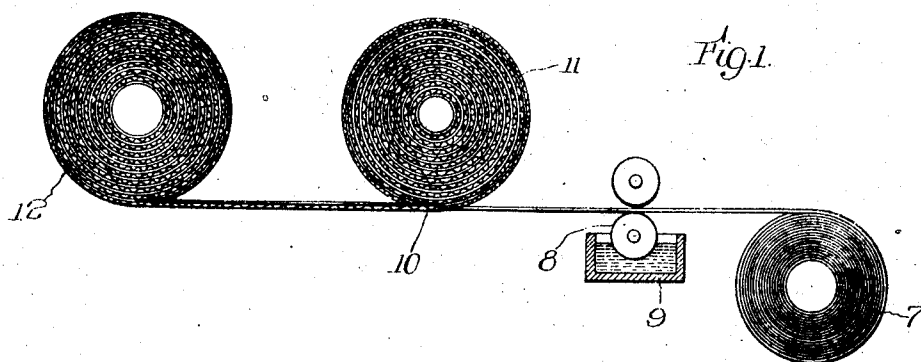
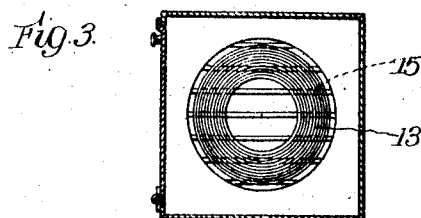
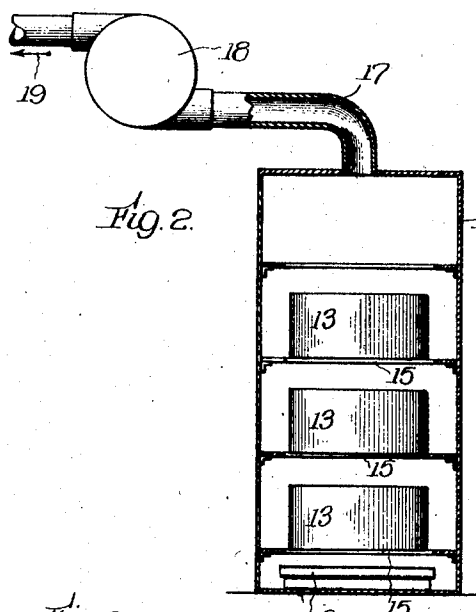
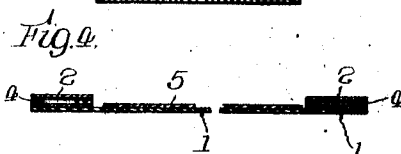
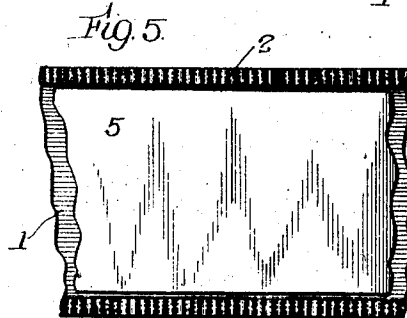
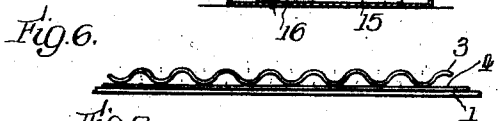
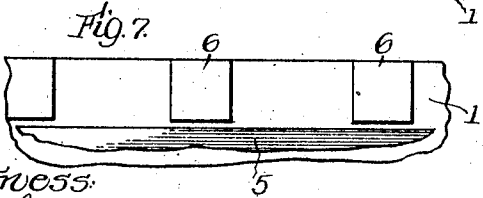
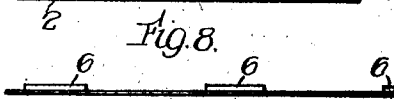
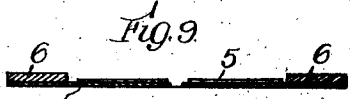


March 24, 1925.

1,530,873

W. E. WILLIAMS
APPARATUS FOR DRYING
Filed June 16, 1921



Witness:
A. J. Sauer.

Inventor:
W. E. Williams

UNITED STATES PATENT OFFICE.

WILLIAM ERASTUS WILLIAMS, OF CHICAGO, ILLINOIS.

APPARATUS FOR DRYING.

Application filed June 16, 1921. Serial No. 478,026.

To all whom it may concern:

Be it known that I, WILLIAM ERASTUS WILLIAMS, a citizen of the United States, a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Apparatus for Drying, of which the following is a specification.

My invention relates to devices that are used in drying material that has been painted or coated, such as wall paper and various other materials which have a paint, ink or other material, coated upon the sheets or fabric, that requires time to dry before the paper or fabric is rolled upon itself. A particular use for which this is well adapted is drying a paper or fabric having a coating which requires a considerable length of time to dry before the material may be rolled on itself.

Reference will be had to the accompanying diagrammatic drawings in which Figure 1 shows in vertical section a form of my apparatus—

Figure 2 shows in sectional elevation a dry house adapted for use with my carrier.

Figure 3 is a plan section of my dry house.

Figure 4 is a transverse section through the carrier, showing the material in place thereon.

Figure 5 is a plan view of a segment of the carrier and material carried thereby.

Figure 6 is an edge view of the carrier sheet.

Figures 7, 8 and 9 show a modified form of the carrier.

In the drawing, 1 indicates the sheet of paper, cloth or other suitable material which forms the web or body of my carrier.

On the marginal portions, respectively, of this sheet I form ribs or secure two strips of corrugated paper 2 upon a backing sheet 4, itself fixed to the body sheet 1. By this means a space is formed in the interior or body portion wherein may lie, and be coiled with said portion, a strip of coated material indicated by 5, the coated side of the paper being on the same side as the marginal strips or ribs 2. The marginal strips 2 are thicker than the sheet of coated material 5 and thus when the carrier strip is coiled the several layers of the coated strip are spaced from each other, leaving passages for air to circu-

late in contact with the coated surface of the sheet to be dried.

In the modified form, instead of the corrugated strip 2, I secure or form, blocks or raised projections 6 on the margins of the sheet, to perform substantially the same function as the corrugated strips 2 previously described.

In applying the adhesive material, the roll of paper or fabric which is being coated is indicated by 7 and it passes over the coating roller 8 immersed in a vat of coating material 9 and thence to the point 10 where it meets the carrier sheet which is being unwound from the roll 11 and the two pass together and are wound up together forming a roll 12, suitable actuating means, of course, being provided. When a single carrier roll 13 is completed, carrying within it the roll of coated material that is to be dried, it is placed in a drier chamber which is simply a box 14 having foraminous shelves 15 which permit the circulation of air upward from shelf to shelf through the apertures due to the corrugated strips 3 or blocks 6.

The box 14 is provided with a vent 16 at the bottom to permit the entry or escape of air and with a vent pipe 17 at the top connected with a suitable fan indicated by 18 which may run in either direction, either to force the air into the dry room or exhaust it from the dry room 14. The arrow 19 indicates the direction when the current is exhausted from the drying chamber.

By this arrangement I may create the kind of an atmosphere that is desired to handle any sort of a material, and I may carry a very large quantity of coated strips in very close and narrow spaces which is the purpose of the invention, along with the feature of the convenience in creating the special atmosphere.

What I claim is:—

1. For drying flexible sheets, the combination with a drying chamber, of a normally plane flexible coiled carrier strip in said chamber and having widely separated lines of spaced surface projections between which lines said sheets may lie, and means for creating an air current in said chamber and the spaces between the projections of each of said lines.

2. For drying flexible coated strips, the combination with a coiled flexible carrier having marginal projections provided with intermediate transverse ventilating passages, spacing the turns of the carrier apart, a chamber containing foraminous shelves supporting the coiled carrier, and means for forcing air through the chamber.

Signed at Chicago, in the county of Cook and State of Illinois, this 2nd day of May, 1921.

WILLIAM ERASTUS WILLIAMS.

Witnesses:

F. M. ROBEL,

B. J. BERNHARD.