

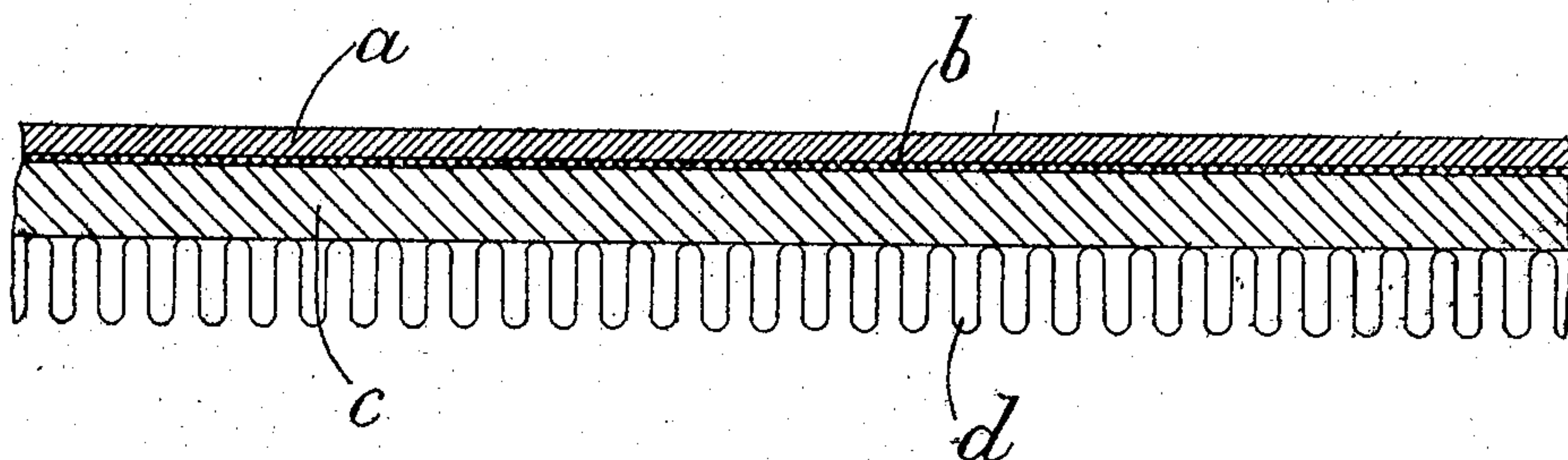
No. 815,999.

PATENTED MAR. 27, 1906.

R. C. ANNAND.

MANUFACTURE OF STEREOTYPES AND THE LIKE.

APPLICATION FILED OCT. 10, 1905.



WITNESSES

W. P. Burke  
John A. Perival

INVENTOR

Robert Cumming Annand

By *Richardson*  
ATTY'S



# UNITED STATES PATENT OFFICE.

ROBERT CUMMING ANNAND, OF SOUTH SHIELDS, ENGLAND.

## MANUFACTURE OF STEREOTYPES AND THE LIKE.

No. 815,999.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed October 10, 1905. Serial No. 282,210.

*To all whom it may concern:*

Be it known that I, ROBERT CUMMING ANNAND, a subject of the King of Great Britain and Ireland, residing at Cornwallis street, South Shields, in the county of Durham, England, have invented certain new and useful Improvements in and Relating to the Manufacture of Stereotypes and the Like, of which the following is a specification.

My invention relates to flong and to processes for manufacturing the same.

When using flong as heretofore manufactured in the preparation of molds for stereotyping purposes, it has been necessary in order to get satisfactory results to form the mold by pressing the flong onto the type in the wet state. This involves the loss of considerable time in drying before the mold so formed can be used for the purpose of casting stereotyping-plates.

Primarily the object of my invention is to effect a reduction in the time necessary to produce a cast stereotype-plate.

More particularly the objects of my invention are to provide an improved form of flong which in some cases may be used dry and when wet can be more rapidly dried than has hitherto been possible.

My invention consists in an improved flong in which the usual facing-paper is fixed by a waterproof cement or its equivalent to the body of the flong, which is also provided with a backing of corrugated or similar cellular paper. Instead of or in addition to using a waterproof cement I may fix the facing-paper to a soft sized paper which has been treated with tar-oil or the like in order to render it waterproof.

The accompanying drawing represents diagrammatically and not to a definite scale flong constructed according to one form of my invention.

In constructing the flong according to one method, as illustrated diagrammatically in the drawing, the usual facing-paper *a* is cemented to the body *c* of soft sized paper by means of a waterproof cement *b*, which is spread evenly over the surfaces in contact. A suitable waterproof cement for this purpose may be obtained by adding to the usual paste employed by stereotypers about half its weight of unvulcanized rubber which has been rendered soluble in carbon bisulfid, which is added till the composition is reduced to about the thickness of syrup. This paste

should be intimately mixed and kept in a closed vessel.

The backing *d* consists of one or more sheets of corrugated or similarly embossed or crinkled paper produced by mechanical pressing, rolling, or the like. With this form of backing the pressure on the type presses the air out of the cells or channels in the corrugated paper and compresses the flong where the type is, but leaves the flong in its thickened state or more open character in the blanks between lines and lettered and in open parts of the matter. In the manufacture of my improved backing according to one modification I provide an embossing-plate, preferably of metal, of the size of the largest sheet of flong required. The upper surface of this plate is grooved with V-shaped grooves, conveniently ten or twelve to the inch, which may be arranged in any convenient manner. The plate is placed on a mangle or rolling-machine as used in stereotyping-foundries, and a sheet of what is known as "backing-paper" is beaten or rolled into the grooves in the plate, preferably in a damp state. The materials which form the upper layers of the flong are pasted at the back and laid carefully onto the sheet of backing-paper while the same remains on the embossing-plate. The plate, with the flong upon it, may then be put under the hot press and baked until it is thoroughly dry, or air-drying, as hereinafter described, may be employed or any other convenient method, so long as the whole of the moisture is removed from the flong before it is used.

The structure produced by embossing or the like may be cellular or channeled or of any other suitable form.

If desired, one or more of the inner sheets forming the flong may be embossed in addition to the sheet forming the backing, so as to give the required thickness and density of flong for the particular work to be stereotyped.

I may use next the embossed sheet a stiff sheet of strong paper, then two sheets of blotting-paper, and above that the facing-paper.

It will be obvious that other numbers of sheets and other kinds of material than those above mentioned may be used in making the flong and that I may use other means of embossing the backing and other sheets forming the flong than those above described. For instance, I may make the backing for the



flog from the web and emboss it in the manner in which wall-paper is commonly embossed.

An important feature of my invention is the pasting of the facing-paper to the body of the flog by means of a waterproof adhesive cement or employing other waterproofing agents, such as a body of waterproof paper. For instance, when molding solid pages of matter the flog can be used in its dry state; but when there are large blanks in the pages and where great depth is required in the mold the facing only is damped. By providing a waterproof cement or using a waterproof body the moisture does not pass through the body of the flog, and in consequence only the small amount of moisture in the facing has to be dried out before the mold is ready for casting purposes. This effects a considerable saving in time. Another advantage of using waterproofing paste is that when the facing-paper is damped the moisture does not loosen the attachment of the facing-paper to the rest of the mold, and consequently greater heat may be applied to drying it without the steam generated separating the layers of the flog and damaging the mold.

It will be seen that this flog is suitable for all classes of stereotyping and the thickness and density of the flog may be arranged to suit the conditions under which it is required to work or at the discretion of the stereotyper.

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

1. A flog having a facing, a body part and a backing of cellular paper, substantially as described. 40
2. A flog having a facing-paper, a body part means for preventing the passage of moisture from the facing through the body of the flog and a backing of cellular paper. 45
3. A flog having a facing-paper, a body part of unsized paper waterproofing means interposed between said facing-paper and body part, a backing of mechanically-produced cellular paper, substantially as described. 50
4. A flog having a facing-paper, a body part of unsized paper, a waterproof cement fixing said facing-paper and body part, a backing of mechanically-produced cellular paper substantially as described. 55
5. A flog having a facing of tissue-paper, a body part of unsized paper pasted to the facing-paper by a paste having unvulcanized rubber added thereto, a backing of mechanically-produced cellular paper. 60

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT CUMMING ANNAND.

Witnesses:

JOHN WILLIAM HALL,  
JAMES ALEXANDER.