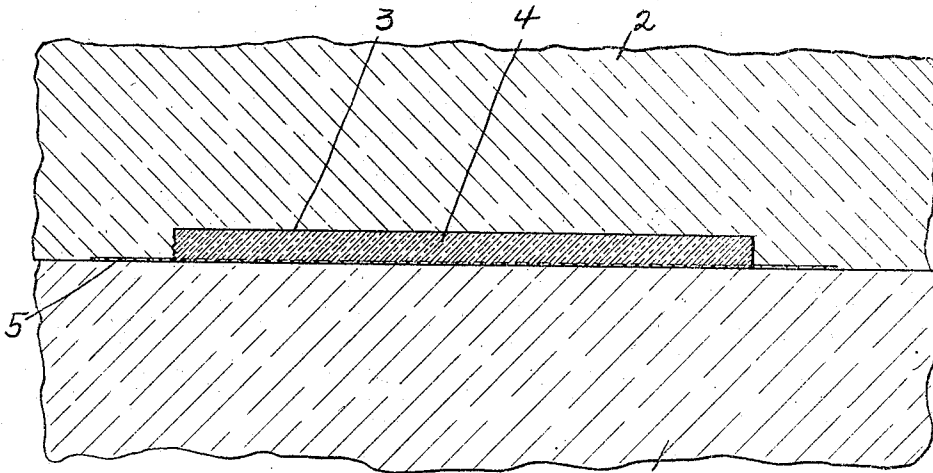
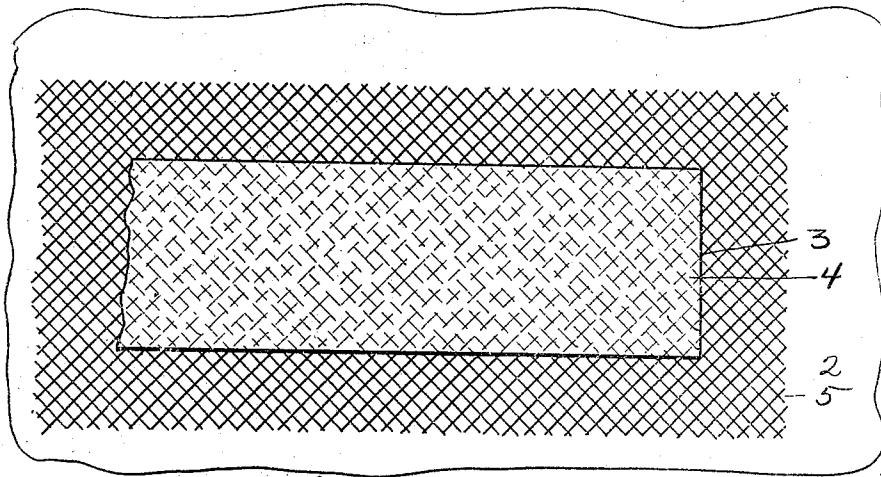


B. C. EDKIN.
ART OR PROCESS OF CASTING THIN STRIPS OF METAL.
APPLICATION FILED APR. 30, 1910.

987,867.

Patented Mar. 23, 1911.



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UNITED STATES PATENT OFFICE.

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ART OR PROCESS OF CASTING THIN STRIPS OF METAL.

987.867.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BERT C. EDKIN, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in the Art or Process of Casting Thin Strips of Metal, of which the following is a specification.

This invention relates to an art or process of casting thin strips of metal, and consists in certain improvements therein as will be hereinafter fully described and pointed out in the claims.

The invention is particularly adapted for casting thin strips of such metals as contract greatly in cooling, as compared with the cohesive quality of the metal in a fluid or semi-fluid state.

I have utilized the invention in casting brake shoes formed of a metal made up of copper and lead of about equal parts. These range from ten to eighteen inches long, and in width from one to six inches, and in thickness from one-eighth to five-sixteenths of an inch. In casting these, great difficulty has been experienced by reason of the fact that the metal in cooling contracts, and this contracting is so localized or cumulated at some one point along the metal that the finished casting separates or forms two parts. I have obviated this difficulty by arranging in the mold, preferably on one face of the mold, a wire mesh, then pouring the fluid metal into the mold. The wire mesh engaging the metal prevents the localizing of the construction and thus the separation of the metal. In this way I find it entirely feasible to cast metals of this kind, in a single length or ten to eighteen inches, suitable for automobile brake shoes and the like.

I prefer to arrange the wire mesh diagonally to the length of the metal strip. This adds to its flexibility in following the contraction of the metal.

In the accompanying drawings I have shown the method of arranging the mesh in the mold.

Figure 1 shows a plan view of one portion of the mold; Fig. 2 a central section through the mold.

1 marks the draw; 2 the cope; 3 the mold; 4 the metal strip, and 5 the wire gauze.

In practice, the cavity is formed in one or the other parts of the mold so that the wire

gauze may be laid on one face of the mold, and extend beyond the faces of the mold. The mold parts, when they are placed together, hold the wire mesh in position along one face of the mold cavity, so that in the finished article the wire mesh is on one face of the metal strip.

In the drawings but a fragment of the metal strip is shown, it being broken off at one end.

The method is useful, where the cross section is such relatively to the length as to result in the separation or make it difficult, to prevent the separation, of the casting during cooling.

What I claim as new is:

1. The art or process of casting articles in the form of thin strips and of a metal that contracts greatly in cooling as compared with its cohesive quality in a fluid or semi-fluid state, which consists in securing to the metal while in a molten state a reinforcing strip whereby the localizing of the contraction of the metal is prevented.

2. The art or process of casting articles in the form of thin strips and of a metal that contracts greatly in cooling as compared with its cohesive quality in a fluid or semi-fluid state, which consists in embedding in the metal while in a molten state a reinforcing strip whereby the localizing of the contraction of the metal is prevented.

3. The art or process of casting articles in the form of thin strips and of a metal that contracts greatly in cooling as compared with its cohesive quality in a fluid or semi-fluid state, which consists in embedding a wire mesh in the metal forming the casting while in the molten state whereby the localizing of the contraction of the metal is prevented.

4. The art or process of casting articles in the form of thin strips and of a metal that contracts greatly in cooling as compared with its cohesive quality in a fluid or semi-fluid state, which consists in embedding a wire mesh in the metal forming the casting while in the molten state, whereby the localizing of the contraction of the metal is prevented, said wire mesh being arranged with the wires thereof in a direction diagonal to the length of the strip.

5. The method or process of forming thin strips of metal which consists in forming a mold cavity, arranging a wire mesh thereon

with the edges of the wire mesh of greater
extent than the mold cavity closing the mold
cavity, and holding the wire mesh in place
at the edges along one surface of the mold,
5 and introducing a molten metal to the mold
cavity.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing
witnesses.

BERT C. EDKIN.

Witnesses:

H. C. LORD,

MARGARET M. BEIGLE.