

UNITED STATES PATENT OFFICE.

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COMPOUND FOR FORMING THE BOTTOMS OF METAL-HEATING FURNACES.

No. 830,037.

Specification of Letters Patent.

Patented Sept. 4, 1906.

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To all whom it may concern:

Be it known that I, DAWSON ADERHOLT, a citizen of the United States, residing at Royalton, Pennsylvania, have invented a certain
5 new and useful Improvement in Compounds for Forming the Bottoms of Metal-Heating Furnaces, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to a new and useful compound for forming the bottoms of rivet-heating furnaces and furnaces used in blacksmith-shops for welding and other similar
15 purposes.

The compound consists of burnt core-sand, tumbler-sand, and coarse salt mixed together in a dry state, the proportions in which these ingredients are mixed together
20 being about as follows: ninety-one per cent. burnt core-sand, six per cent. tumbler-sand, and three per cent. coarse salt. By "burnt core-sand" I mean the sand which is used for forming the cores of castings and which is
25 taken from the castings after they have been poured. This core-sand is a composition consisting of the following ingredients: sharp sand or quartz and a small portion of molding-sand with which some clay and a little
30 rosin is mixed. This composition, as is well known, is molded into the desired shape and then dried in an oven to form the completed core. "Tumbler-sand" consists of a mixture of sand and small particles of iron, this
35 mixture being taken from beneath the tumblers or rattlers which are used in foundries

for cleaning out the castings. By mixing this tumbler-sand, burnt core-sand, and coarse salt in about the proportions previously specified I have found that it forms a
40 bottom for metal-heating furnaces which is superior to any material which has heretofore been used for this purpose.

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

1. A compound consisting of burnt core-sand, tumbler-sand and coarse salt thoroughly mixed together; substantially as described.
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2. A compound consisting of burnt core-sand, tumbler-sand and coarse salt thoroughly mixed together in a dry state; substantially as described.

3. A compound consisting of burnt core-sand, tumbler-sand and coarse salt mixed together in a dry state and in about the proportions specified; substantially as described.
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4. A compound consisting of the following ingredients mixed together in a dry state, coarse salt, sand with which small particles of iron are mixed, and dried sand with which molding-sand, clay and rosin are mixed; substantially as described.
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In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 2d day of May, 1906.
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DAWSON ADERHOLT.

Witnesses:

WM. A. CROLL,
A. MARSHALL.