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UNITED STATES PATENT OFFICE.

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STEEL ALLOY.

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To all whom it may concern:

Be it known that I, BENNO STRAUSS, residing at 289 Alfredstrasse, Essen-Bredeney, Germany, a citizen of the German Republic, have invented a certain new and useful Improvement in Steel Alloys, of which the following is a specification.

This invention relates to a composition of matter to be used for manufacturing articles (vessels, pipes, machinery parts, etc.) which require a high resistibility against corrosion by ammonium-chloride solutions.

The composition consists of a steel alloy containing 18 to 24 per cent of chromium, 7 to 20 per cent of nickel, 2 to 6 per cent of copper and 0.1 to 0.4 per cent of carbon.

I am aware that chromium-nickel-steel alloys are already well-known which are adapted to be used for manufacturing articles requiring a high resistibility against corrosion. However, it is only by the addition of copper that steel alloys of the said kind will obtain a particularly high resistibility against the attacks of ammonium-chloride solutions. These solutions are evaporated in large quantities, for instance with the object of producing sal-ammoniac as a fertilizer, and experience has shown that the chromium-nickel-steel alloys known hitherto are not sufficiently resistant against those sal-ammoniac containing solutions. The use of cupriferous chromium-nickel-steel alloys, however, renders it possible to manufacture resistant vessels for evaporating the ammonium-chloride solutions.

Claim.

As a composition of matter for use in manufacturing articles requiring a high resistibility against corrosion by ammonium-chloride solutions, a steel alloy containing 18 to 24 per cent of chromium, 7 to 20 per cent of nickel, 2 to 6 per cent of copper and 0.1 to 0.4 per cent of carbon.

BENNO STRAUSS.