

G. GERDOM.
GAS CHECK PAD.
APPLICATION FILED MAR. 29, 1906.

968,762.

Patented Aug. 30, 1910.

Fig. 1

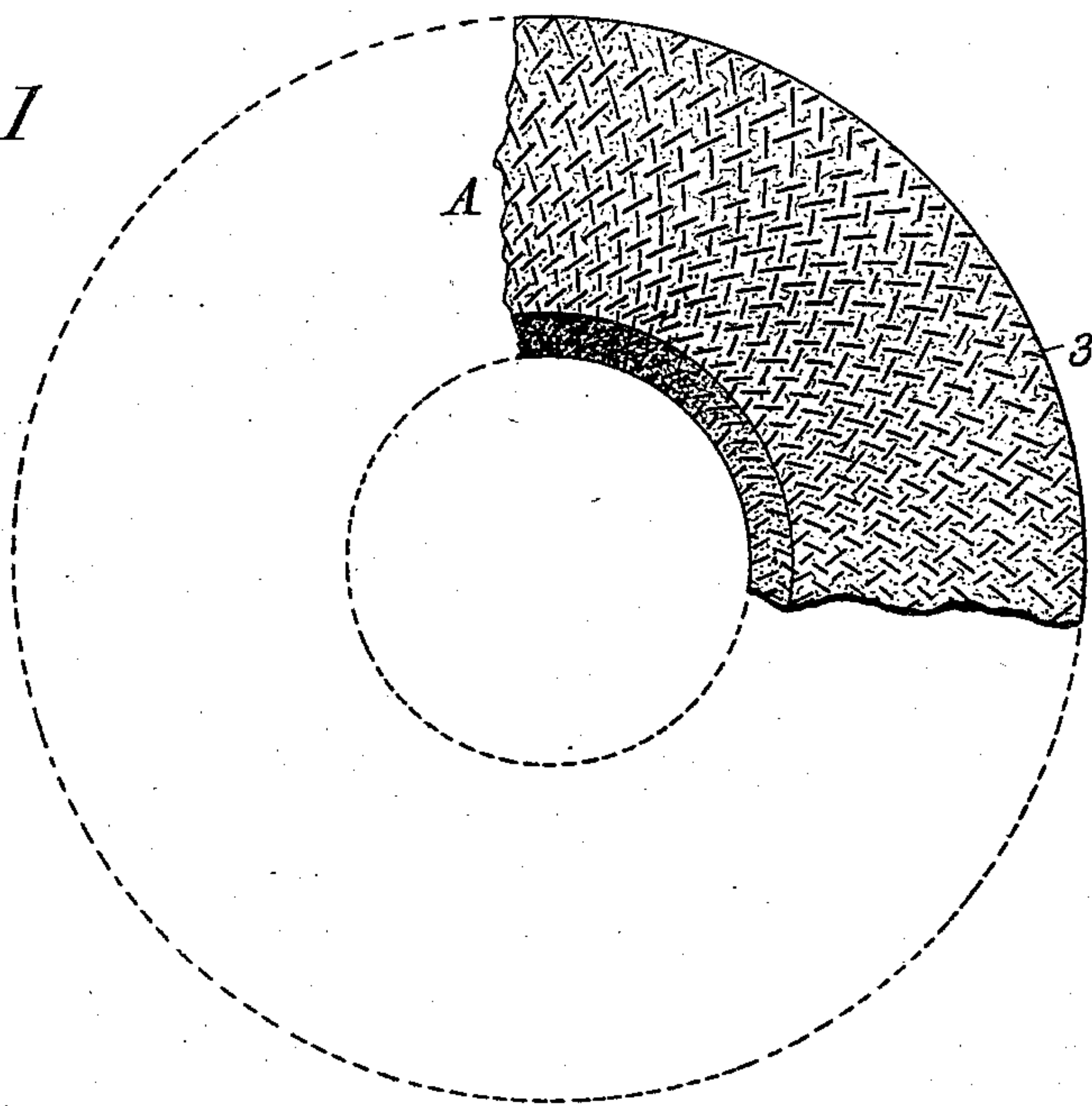


Fig. 2

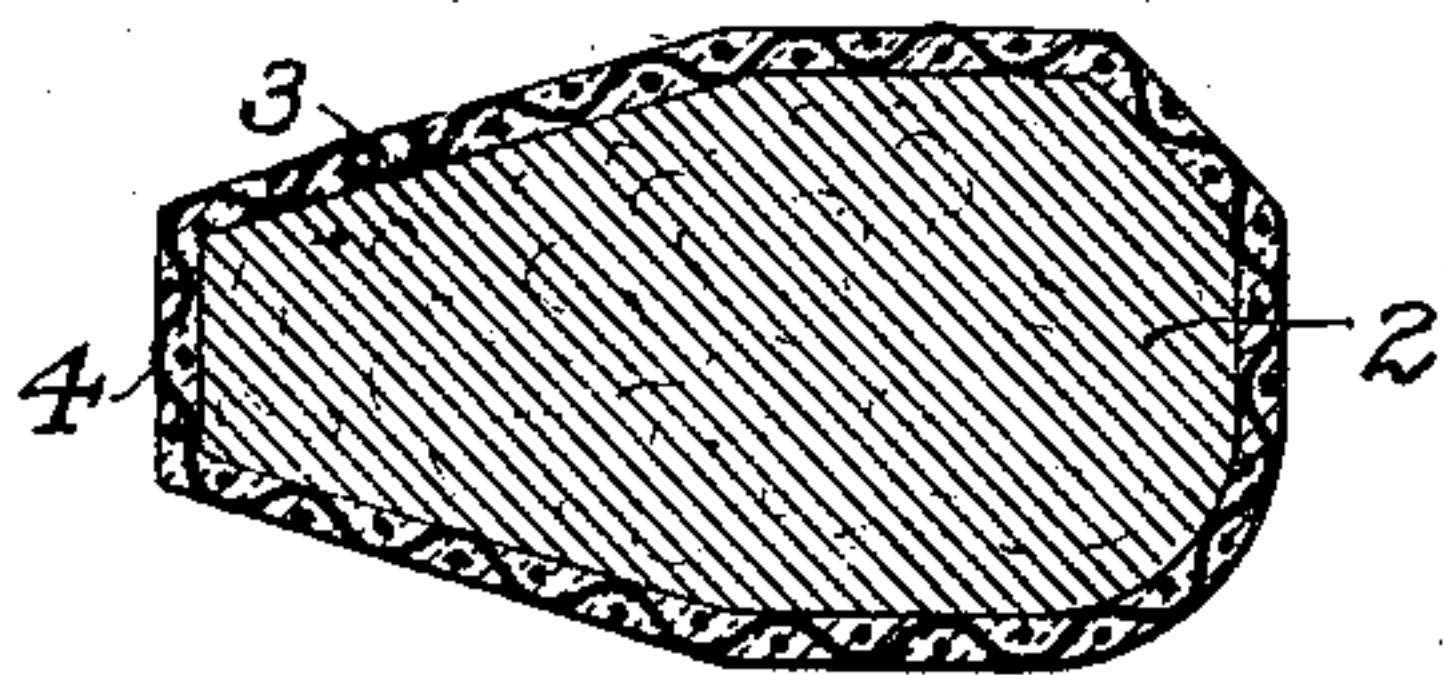


Fig. 3

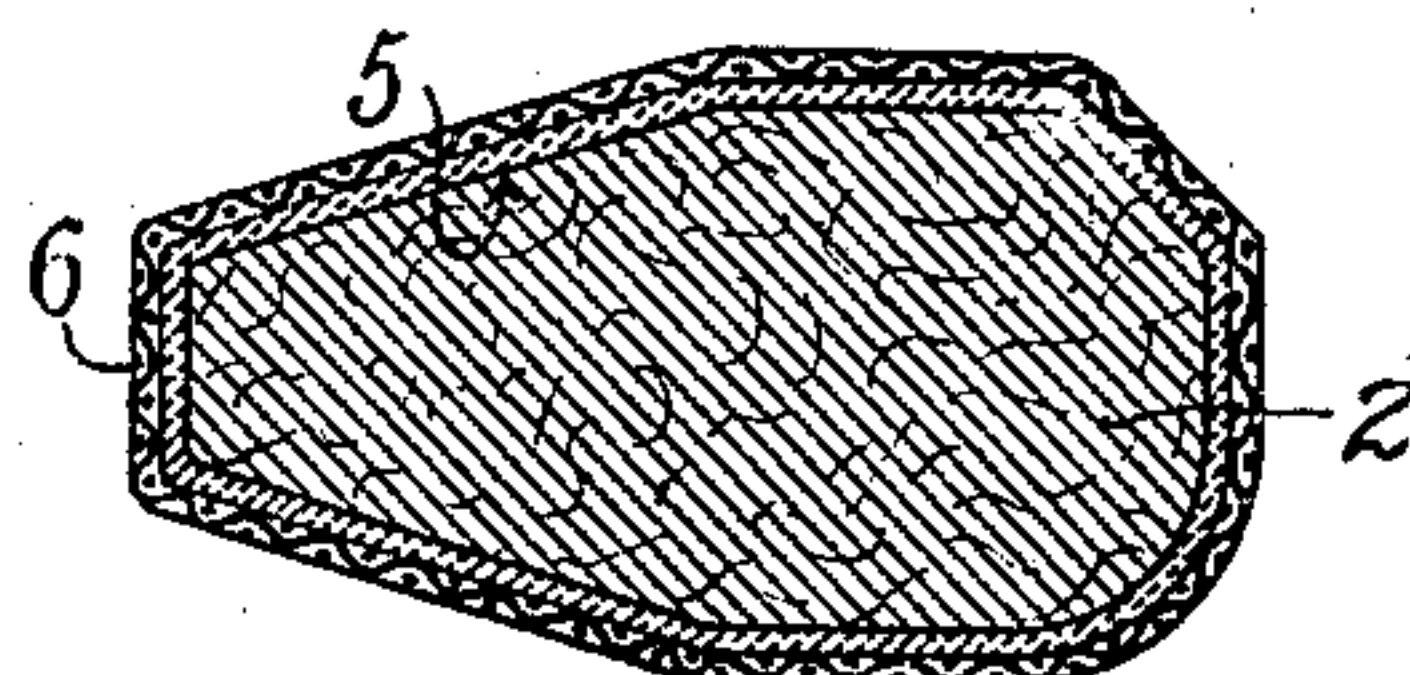


Fig. 4

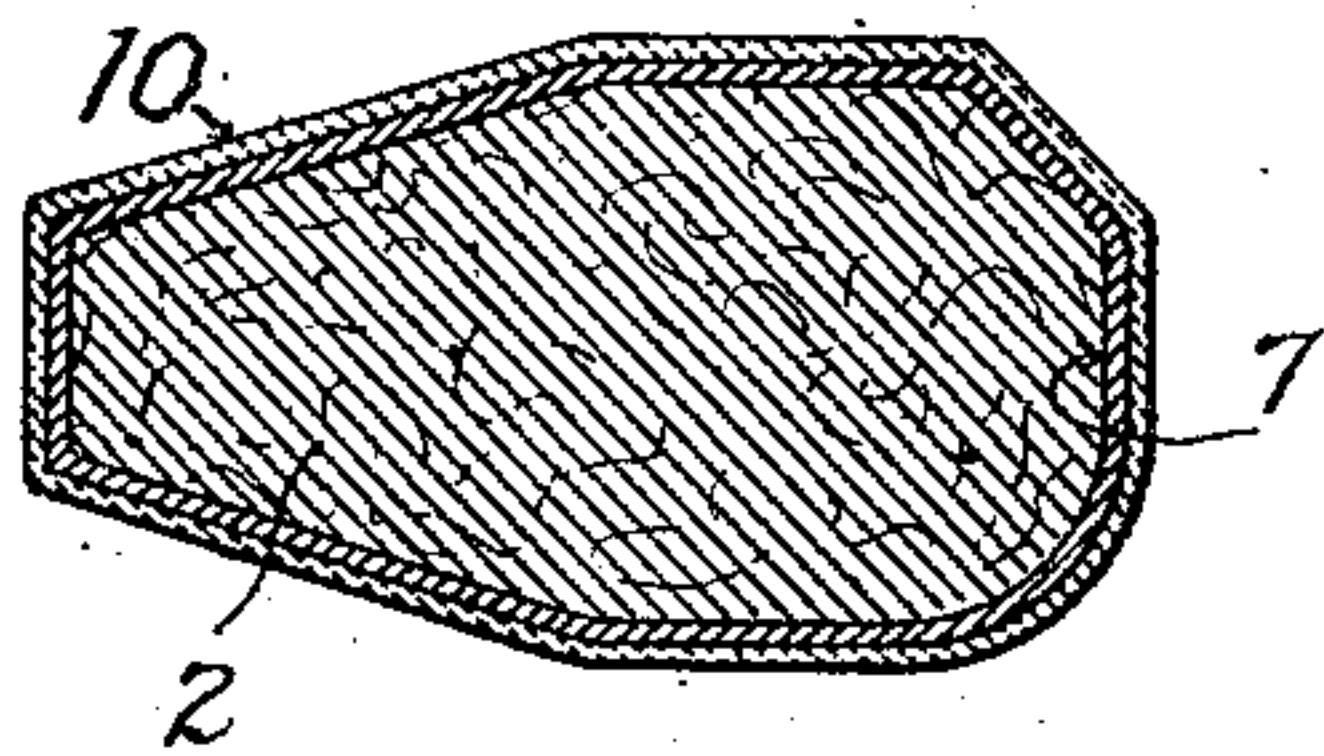
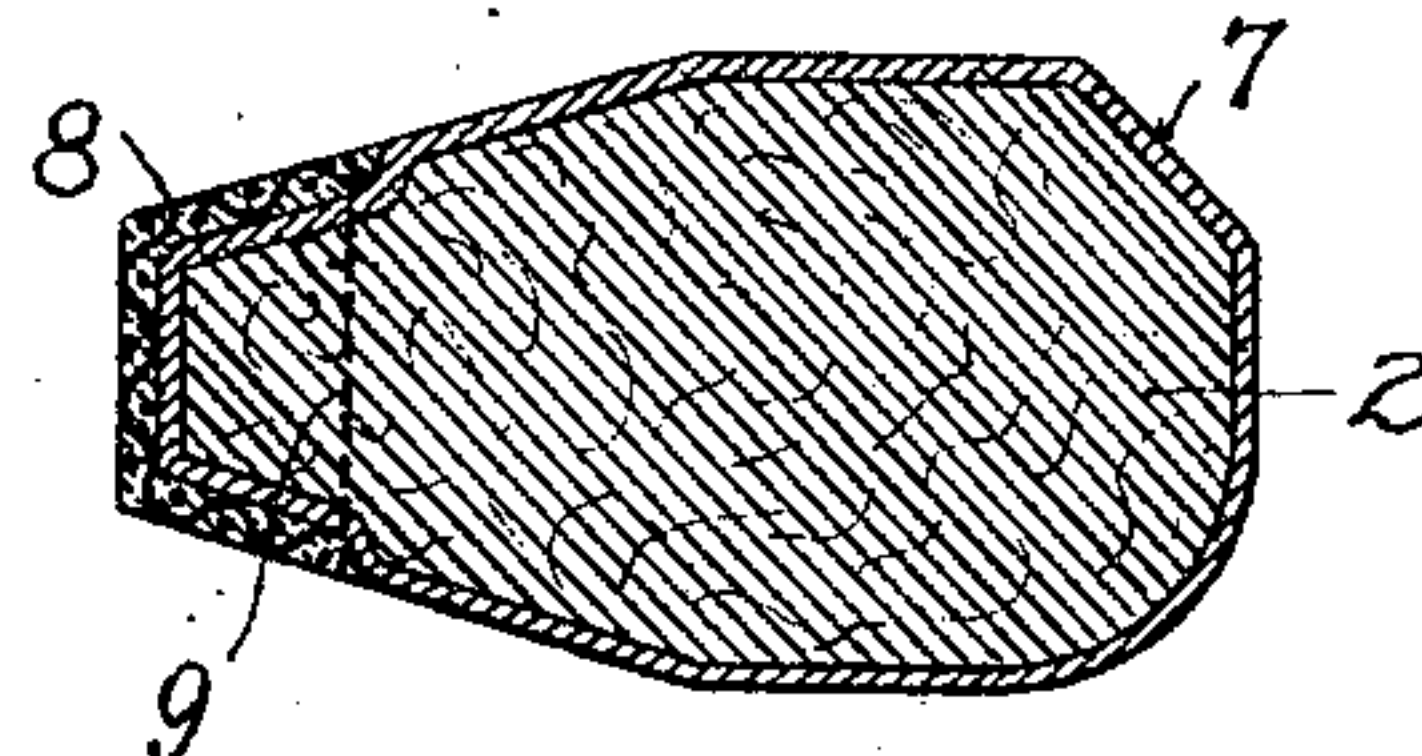


Fig. 5



Witnesses
Russell Ketter
D. Williams

Gregory Gerdner Inventor
By his Attorney *D. Williams*

UNITED STATES PATENT OFFICE.

GREGORY GERDOM, OF WATERVLIET, NEW YORK, ASSIGNOR TO ORDNANCE IMPROVEMENT COMPANY, A CORPORATION OF NEW YORK.

GAS-CHECK PAD.

968,762.

Specification of Letters Patent. Patented Aug. 30, 1910.

Application filed March 29, 1906. Serial No. 308,656.

To all whom it may concern:

Be it known that I, GREGORY GERDOM, a citizen of the United States, residing at and whose post-office address is Watervliet, Albany county, State of New York, have invented a new and useful Gas-Check Pad, of which the following is a specification.

My invention relates to improvements in gas check pads for ordnance of the so-called "de Bange" type, its object being to provide an improved composition for the plastic core of the same, and an improved covering of heat-resisting material.

To this end, my invention consists in the composition and features of construction hereinafter described and claimed.

In the accompanying drawings forming part of this specification, Figure 1 is a plan view of a typical pad showing a covering or envelop of asbestos cloth reinforced by an interwoven wire cloth. Fig. 2 is a cross-sectional view of the same. Fig. 3 is a similar view or modification in which wire cloth is superposed upon the asbestos cloth. Fig. 4 is a similar view of a still further modification in which the asbestos cloth is superposed upon a canvas envelop and Fig. 5 is a similar view of another modification in which the canvas envelop is reinforced and protected on the outer periphery of the pad by a partial envelop of reinforced asbestos cloth, the edges of the same being held in place by stitching through the pad.

In the drawings the pad A is made up of a core of plastic material 2, the preferred composition of which is hereinafter described, being inclosed and covered by a flexible envelop or cover 3 as shown in Fig. 1, of asbestos cloth having interwoven therewith wire cloth 4 for reinforcing and strengthening the same. In the modified construction of Fig. 3 the asbestos cloth 5 is shown without interwoven wire, but is reinforced by a superposed layer of wire cloth 6. In the construction of Fig. 4 the core is shown covered by a canvas envelop 7 with asbestos cloth 10 superposed thereon, and in the construction of Fig. 5 the canvas cover 7 of the pad is shown reinforced and protected on its most exposed part, namely the outer periphery, by a partial cover of reinforced asbestos cloth 8, which is held in place by stitches 9 along its edges and extending through the mass of the pad. The object in all of these constructions is to pro-

tect the pad by means of asbestos cloth from being injured by the heat of escaping gases.

In all cases it is important that the asbestos cloth be saturated with a suitable cementing material to firmly bind its fibers together. For this purpose I prefer to use a solution of glue and linseed oil prepared as follows: Take about two (2) parts by weight of glue and dissolve to a consistency of jelly when cold. Add about one (1) part by weight of boiled linseed oil and mix to uniform consistency. Then saturate the asbestos cloth and allow it to become about one-third dry, then apply and secure in place, after which the pad is pressed.

While any suitable plastic material may be used for the core, I prefer a composition prepared as follows: Take two (2) parts by weight of Chinese wood oil or tong oil and one (1) part by weight of lard or lard oil, place in a vessel and heat until reduced to a jelly. Meanwhile heat and mix together in a separate vessel one and one-half ($1\frac{1}{2}$) parts by weight of lard or lard oil and one and one-half ($1\frac{1}{2}$) parts by weight of petroleum jelly, both mixtures being heated to substantially the same temperature. Combine the two mixtures and stir until the whole mass is a jelly of uniform consistency. When cooled thoroughly mix therewith shredded asbestos in the proportion of 40 parts of the oily composition and 60 parts of asbestos. I have found, by long experiment and use, that tong oil has remarkable properties of permanency of character and condition and lack of susceptibility to the influences of changes of temperature, it retaining its condition and consistency practically unchanged throughout all ranges of temperature met with in service conditions, and that the union of tong oil with the other described ingredients therefore makes a composition of very superior quality for the desired purpose. In some cases, in order to make the composition slightly harder tallow may be substituted for the lard or lard oil, and for petroleum jelly animal or vegetable oil may be substituted but with probably less satisfactory results. The composition so prepared when so thoroughly mixed as to be uniform in consistency and in as dense condition as possible, is then formed into proper shape and covered with the asbestos cloth or other flexible material and again pressed.

I claim:

1. A gas check pad having a plastic core and a wire reinforced asbestos cloth envelop saturated with a heat resisting cementing composition.
2. A gas check pad having a plastic core and an asbestos cloth covering reinforced with interwoven wire cloth and saturated with a composition of glue and linseed oil.
- 10 3. A gas check pad having a plastic core made up of tong oil, lard oil, petroleum jelly and asbestos compounded in substantially the proportions and manner specified, and

an asbestos cloth covering reinforced by interwoven wire and with its fibers cemented together by a composition of glue and linseed oil. 15

In witness whereof, I have hereunto set my hand at Albany, in the county of Albany and State of New York, this 22nd day of 20 March, 1906.

GREGORY GERDOM.

Witnesses:

WILLIAM BLASIE,
T. D. MERWIN.