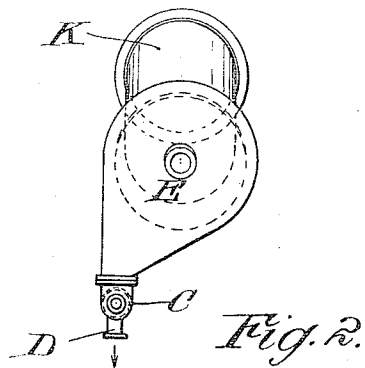
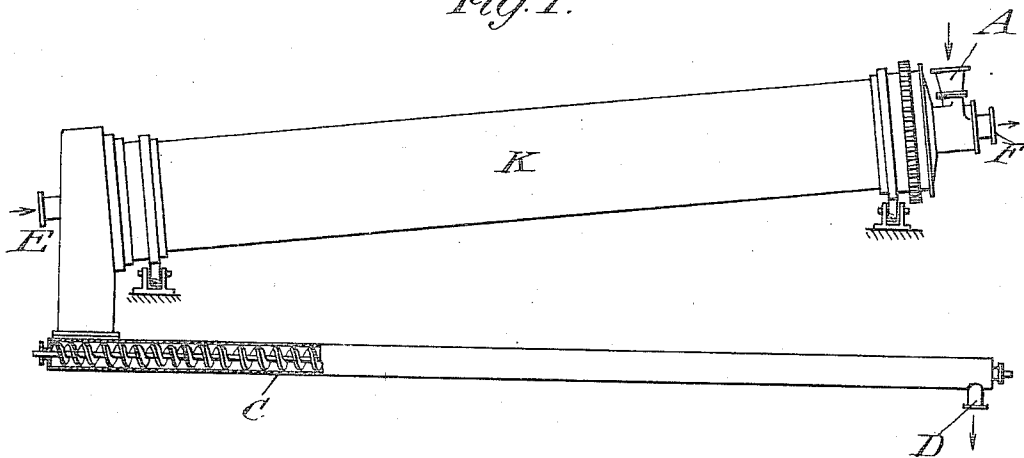


M. GRÜNZWEIG.
TREATMENT OF CORK.
APPLICATION FILED NOV. 30, 1909.

982,950.

Patented Jan. 31, 1911.

Fig. 1.



Witnesses:
Harry Thiem.
F. George Barry.

Inventor:
Max Grünzweig
by his attorney
Brown & Woodward

UNITED STATES PATENT OFFICE.

MAX GRÜNZWEIG, OF LUDWIGSHAFEN-ON-THE-RHINE, GERMANY.

TREATMENT OF CORK.

982,950.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed November 30, 1909. Serial No. 530,537.

To all whom it may concern:

Be it known that I, MAX GRÜNZWEIG, chemist, and a subject of the German Emperor, and resident of Ludwigshafen-on-the-Rhine, in the Kingdom of Bavaria, Germany, whose post-office address in Faegerstrasse No. 11, have invented new and useful Improvements in the Treatment of Cork, of which the following is a specification.

The present invention relates to improvements in the treatment of cork as described in the application No. 404961.

Experiments have shown that comminuted cork might advantageously be altered in its physical and chemical condition and increased in volume by applying heat to it in the following way using a rotary kiln, as shown in the drawings.

Figure 1 is an elevation partly in section, Fig. 2 an end view of the kiln.

K is an ordinary rotating kiln supported and actuated in a well known manner.

The comminuted cork is fed in a hopper A at the upper end of the kiln and passes through it to the lower end. The lower end is incased and connected with a conduit E, through which the combustion gases of a generator or furnace enter into the kiln. These gases enter at a temperature of about 600-700° C., pass through the kiln partly through the cork and partly over it and escape after having heated the cork through a pipe F. The cork moves slowly down the kiln and is heated to a temperature up to 400° C.

The length and speed of the kiln is so regulated that the cork comes near to this temperature. The same time from 30% to 50% by weight of its volatile components are distilled and pass off partly with the combustion gases, and partly after the escape of the cork out of the kiln. The cork falls at the lower end of the kiln into a conveyor of the well known worm type. Here the hot cork dismissing the last part of the distillation products is conveyed through a closed conduit C and is cooled thereby. At the end D of the conduit the cork is suffi-

ciently cooled to be brought into contact with the open air without danger of inflammation. It is understood that the heating gases may enter also at F and escape at E.

Now what I claim and desire to secure by Letters Patent is the following:

1. The process of treating comminuted cork, consisting in evaporating volatile products from the cork to an extent equal to from 30 to 50 per cent. of the weight of the untreated cork, by passing a stream of gas, at a temperature of from 600° to 700° C., into intimate contact with the cork and controlling the time of action of the hot gas to keep the temperature of the cork 400° C. or less.

2. The process of treating comminuted cork, consisting in evaporating volatile products from the cork to an extent equal to from 30 to 50 per cent. of the weight of the untreated cork by passing a stream of combustion products at a temperature of from 600° to 700° C. into intimate contact with the cork, agitating the cork while passing the stream of combustion products into intimate contact with it and controlling the time of action of the hot gas to keep the temperature of the cork 400° C. or less.

3. The process of treating comminuted cork, consisting in evaporating volatile products from the cork to an extent equal to from 30 to 50 per cent. of the weight of the untreated cork by passing a stream of gas at a temperature of from 600° to 700° C. into intimate contact with the cork, controlling the time of action of the hot gas to keep the temperature of the cork 400° C. or less, and finally conveying the heated cork through a closed conveyer for cooling it.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this seventeenth day of November, 1909.

MAX GRÜNZWEIG.

Witnesses:

W. W. SCHMIDT,

WILHELM BRITTERMANN.