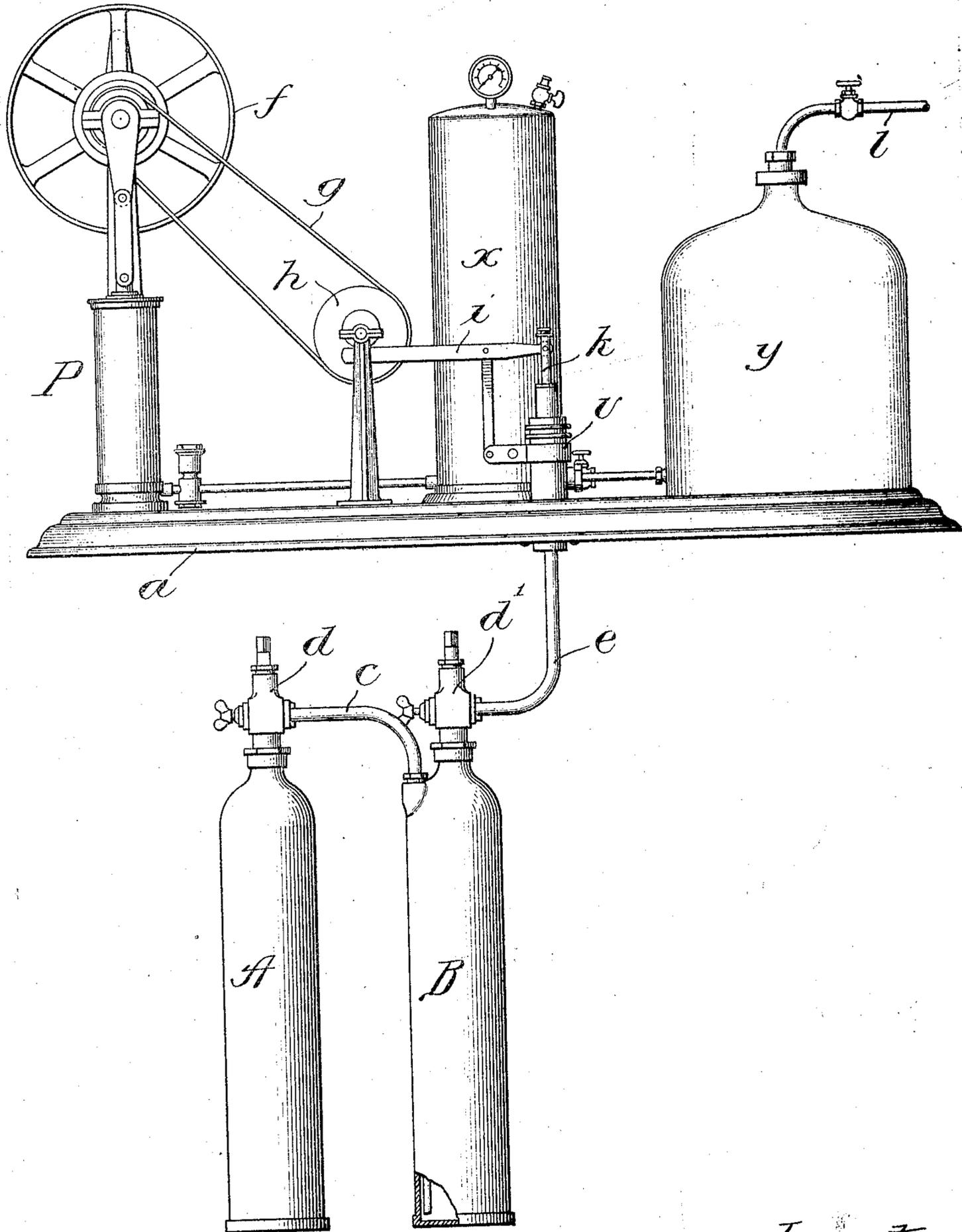


J. A. WESENER.
PROCESS OF APPLYING FLOUR BLEACHES.
APPLICATION FILED MAR. 9, 1909.

951,468.

Patented Mar. 8, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN A. WESENER, OF CHICAGO, ILLINOIS.

PROCESS OF APPLYING FLOUR-BLEACHES.

951,468.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed March 9, 1909. Serial No. 482,369.

To all whom it may concern:

Be it known that I, JOHN A. WESENER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in the Process of Applying Flour-Bleaches, of which the following is a specification.

My invention relates to a process of applying liquefied quiescent gases at ordinary temperatures for bleaching or aging flour.

The object of the invention is to provide an economical and effective method of applying liquefied quiescent gases for bleaching or aging flour.

While certain active gases have heretofore been employed in this art, no process of using them in the liquefied quiescent form in which they are most conveniently, economically and advantageously employed has been discovered. For example, nitrogen peroxid in active gaseous form is known as a bleach, but not its liquefied quiescent form. The present invention seeks therefore to render the liquefied bleaches of this class available practically in the art.

In general, my discovery, is that at ordinary temperatures chlorine, carbon dioxide, hydrochloric acid gas, nitrosyl chloride, nitrous oxide or like pressure gases, or mixtures thereof, which in themselves either have no chemical action on flour or act as bleaching agents, may be applied in such a way as to transform liquefied quiescent gases into active gaseous form and that diluted in air or other suitable inactive gas the mixture may be applied to flour to bleach or age it.

In the accompanying drawings, a convenient apparatus for practicing my process is illustrated. This apparatus is the same as that described in my copending application Serial No. 432,851 filed May 14, 1908, except that a container A adapted to hold pressure gases communicating with the bottom of container B through a pipe *c* under control of a valve *d*, is added.

The container A charged with chlorine, carbon dioxide, hydrochloric acid gas, nitrosyl chloride, nitrous oxide or other gas having a pressure substantially greater than that of the peroxid of nitrogen or other liquefied quiescent gas in container B, es-

comes through the pipe *c* when valve *d* is opened, into the bottom of container B. When valve *d'* is opened the pressure gas or gases vaporize and force the liquefied quiescent gas in a stream through pipe *e* where they are discharged in measured quantities by the measuring device *v* into a conduit or chamber *y* where they are diluted. Measuring device *v* is operated intermittently by pump P preferably driven by power applied to pulley *f*. From the shaft on which this pulley is mounted a cone pulley drives eccentric *h* through belt *g*. This eccentric intermittently operates the piston *k* of measuring device *v* through lever *i*. The air pumped into tank *x* by pump P is admitted under valve control to the conduit or chamber *y*. In this the gas from container B is diluted with air and applied to the flour through pipe *l* as described in my copending application above referred to.

I have found that the ordinary temperatures under which the most advantageous results of my process are obtained range from 50 to 100 degrees Fahrenheit.

I claim:—

1. The process of bleaching or aging flour, which consists in applying under ordinary temperatures to a liquefied quiescent bleaching gas, a pressure gas, having a substantially greater pressure than said liquefied gas to force a gaseous vapor thereof through a measuring device, measuring and mixing said gases with a predetermined quantity of diluent and bringing the mixture into contact with the flour to be treated.

2. The process of bleaching or aging flour, which consists in applying at ordinary temperatures to liquefied peroxid of nitrogen, nitrosyl chloride under pressure to force a gaseous vapor in a stream through a measuring valve, measuring and mixing said stream with diluent and applying the mixture to flour by bringing it into intimate contact therewith.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN A. WESENER.

Witnesses:

ROBERT CATHERWOOD,
ELSIE WAGNER.