

M. SCHMIDT.
CYLINDER FOR STEAM ENGINES AND THE LIKE.
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1,063,835.

Patented June 3, 1913

Fig. 1.

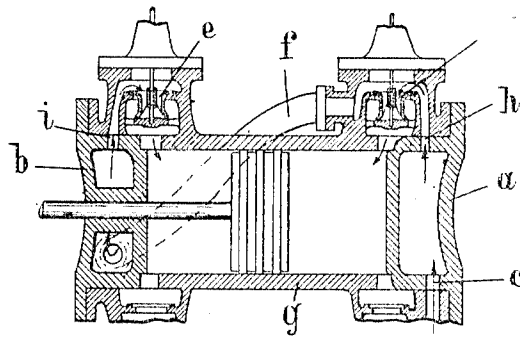
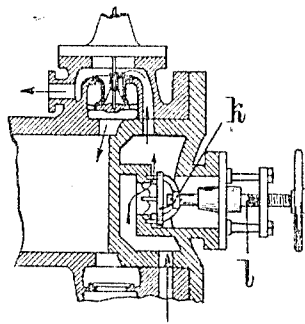


Fig. 2.



Witnesses:

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by

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UNITED STATES PATENT OFFICE.

MAX SCHMIDT, OF HIRSCHBERG, GERMANY.

CYLINDER FOR STEAM-ENGINES AND THE LIKE.

1,063,835.

Specification of Letters Patent.

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Application filed September 28, 1912. Serial No. 721,843.

To all whom it may concern:

Be it known that I, MAX SCHMIDT, director, citizen of the Kingdom of Prussia, Empire of Germany, residing at Hirschberg, Province of Silesia, Germany, have invented certain new and useful Improvements in Cylinders for Steam-Engines and the Like, of which the following is a specification.

My invention relates to improvements in cylinders for steam engines and the like, and more particularly to cylinders in which the steam or other pressure fluid is passed through the hollow cylinder heads before being admitted to the steam chest or valve casings. And the object of the improvements is to provide a cylinder in which the frame supporting the cylinder is heated in a smaller degree by the steam passing through the adjacent cylinder head.

With this object in view my invention consists in first passing the whole of the steam through the back cylinder head and then into the adjacent valve casing, where a part of the steam is admitted to the cylinder, while the remainder passes through the front cylinder head and the second valve casing.

In order that my invention be more clearly understood two examples embodying the same have been shown in the accompanying drawing.

In said drawing Figure 1, is a longitudinal section of the cylinder, and Fig. 2, is a similar section showing a modification of Fig. 1.

Referring more particularly to the example illustrated in Fig. 1, the cylinder *g* is equipped with a back head *a* and a front head *b*. Both heads are made hollow and are provided with means for admitting the steam or other pressure fluid, so that they are thoroughly heated. At both ends steam chests or valve casing *d* and *e* are provided through which the pressure fluid can alternately be admitted to either end of the cylinder, as is known in the art. As shown the back head *a* is provided with an admission port *c* through which the pressure fluid such as steam can be admitted, and it communicates with the adjacent steam chest

d through a passage *h*. The steam chest *d* communicates through a pipe *f* with the hollow of the front head *b*, and the latter is connected through a passage *i* with the adjacent steam chest *e*. The cylinder valves may have any suitable construction, and may be operated in any preferred way.

The operation of my improved cylinder will readily be understood. The pressure fluid, such as steam will first pass through the back head *a* and to the steam chest *d*. From the latter a part of the steam will be admitted to the cylinder, while the remaining part flows through the pipe *f* to the front head *b*, and from the latter to the steam chest *e*. Thereby both cylinder heads will thoroughly be heated. In the construction described all the steam passes through the back head *a*, while only a part thereof flows through the front head *b*. This arrangement is advantageous in this respect, that thereby from the front head which receives less heat than the back head a smaller amount of heat is transmitted to the frame of the engine which is connected with the front head. By my improved construction only one admission pipe is necessary, and furthermore I avoid the use of an admission pipe which is branched off into two sections, as is necessary in steam cylinders of ordinary type.

In the modification shown in Fig. 2 the steam admission valve *k* is disposed within the back head, and its stem *l* is located at the rear of the said head.

I claim herein as my invention:

In a cylinder for steam engines and the like, the combination with the cylinder having two steam chests or valve casings, of a front head and a back head, and means to successively pass the pressure fluid through the back head, one of the steam chests, the front head, and the second one of the steam chests.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MAX SCHMIDT.

Witnesses:

ALTA WENHERH,
F. SCHEFFELDT.