

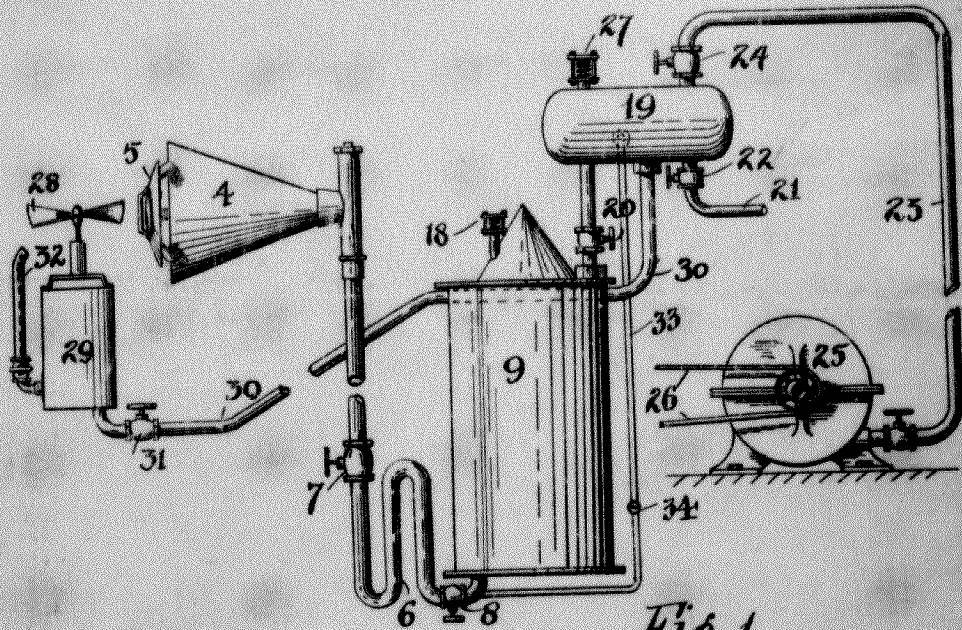


Fig. 1.

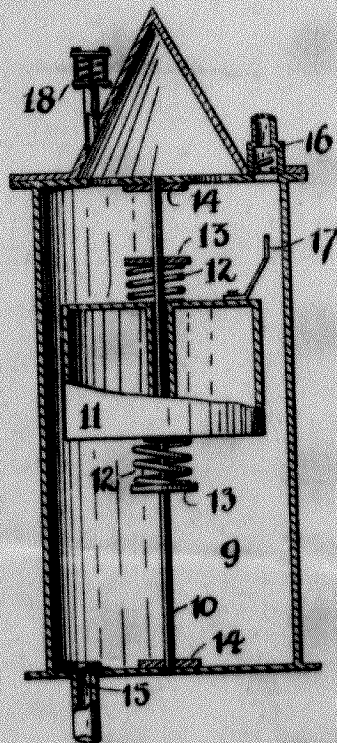


Fig. 2.

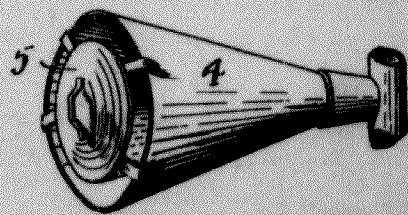


Fig. 3.

Witnesses
Arthur Hichborn
Geo W. Morgan

Certified to be the drawings referred to
 in the specification hereunto annexed.
 Hamilton, Ont. June 20th 1912.

Inventor
Arthur Hichborn
 by
Alfred J. Bratton
 Attorney

My invention has for its object to utilise atmospheric air for the purpose of obtaining power to drive machines of various kinds by introducing a current of air in a syphon. By means of further apparatus I have found that it is possible to compress the air coming from the syphon and to utilise the pressure for various purposes.

I have illustrated the invention in the accompanying drawings, in which

Figure 1 is a diagrammatic view of my plant.

Figure 2 is a vertical sectional elevation of what I term the compressor, and

Figure 3 is a view of the air intake funnel.

The funnel 4 is open to the air but may be partly closed by a cover 5 to keep out foreign matter.

The funnel is attached to a pipe leading directly to a syphon 6 and there are cocks 7 and 8 in the syphon.

The syphon leads to a chamber 9 in which is a vertical guide rod 10 upon which a hollow piston 11 of lesser diameter than the chamber is adapted to freely move. On each end of the piston is a spiral spring 12 and buffer plates 13 and on each interior end of the chamber are like buffer plates 14 preferably composed of rubber. In the lower end of the chamber 9 is a foot valve which I use as an intake valve 15 and in the roof of same there is a like valve or outlet 16 which, as the piston rises, can be opened by a contact finger 17 on the piston. A safety valve 18 is also in the chamber 9.

A pipe leads from the chamber 9 to a storage chamber 19 in which pipe is a cock 20 and there is a blow off cock 27 on the storage chamber.

Leading into chamber 19 is a pipe 21 in which is a cock 22

through which air is pumped to provide an artificial pressure in the chamber 19. In small plants this may be done with an ordinary hand or foot pump but in larger installations a steam or other pump should be connected up with the chamber. The main outlet from the chamber is by pipe 23 and cock 24 and this pipe leads directly to a turbine wheel 25 that is in connection with a generator or other machine through belt 26. Chamber 19 is also in direct communication with the syphon through a comparatively small pipe 33 and cock 34 for the purpose hereinafter explained.

In order to charge the syphon the storage chamber 19 is filled with air under pressure through pipe 21 after closing all the cocks, and the pump is continued until an artificial pressure is obtained of say from 10 to 20 pounds to the square inch. The cock 34 is then opened to fill syphon after which open blow off 27 on chamber 19 and then immediately open cock 7. Then before immediately opening cock 24 to turbine open all cocks except 22 and close blow off 27.

In order to assist in unducing or accelerating the current of air through the funnel 4 I may arrange near the same a fan 28 adapted to deliver into the funnel. This is done by mounting the fan on an air compartment 29 that is in connection with storage 19 through pipe 30 in which is cock 31. Arranged on 29 is a pipe 32 for the purpose of delivering a jet of air under pressure to the fan 28.

When an air current is induced in the funnel and the syphon is charged the latter will deliver a strong jet of air into the chamber 9 which will act upon the piston 11 to push it upwards thereby to some extent compressing the air above it and causing a portion to be sent through into chamber 19. When the piston is operated upwards it may cushion on the spring 12 and on its falling again will come

within the influence of the issuing jet from the syphon and will be again pushed up by the same.

The draught accelerating means 28 need not be continued after the syphon is properly started. The funnel and the syphon should be placed as near together as possible .

I have found that my invention is operable without the chamber 9 by connecting up the syphon 6 directly to the storage 19 but I prefer to utilize chamber 9 because through it I can regulate and govern the supply of air to and from the storage 19.

In practice I have been enabled using only atmospheric air to drive by means of my invention an electric generator for a considerable period of time, and to do other useful work through the pressure of air induced by and through the syphon and the parts and appliances herein described.

WHAT I CLAIM FOR MY INVENTION IS:-

1. Means for obtaining power comprising a syphon having connected thereto an air-receiving funnel, a cylindrical compartment provided with a piston connecting with said syphon, a storage chamber connected to said compartment, connecting means between said syphon and said storage chamber, means for supplying compressed air to said storage chamber and means for accelerating the air-draught in said receiving funnel.
- 0- 2. In means for obtaining power, the combination with a syphon provided with a forced-air receiving funnel of a storage ~~compartment~~ chamber containing compressed air connecting therewith, a cylindrical compartment provided with a piston arranged between ~~said syphon~~ and connecting with said syphon and said storage chamber.
3. In means for obtaining power, the combination with a ~~syphon provided~~ syphon provided with a forced draught receiving air funnel of a compressed air chamber connecting therewith, means for regulating the supply of air from said syphon to said air chamber.