



ELEVATOR WORKED BY THE SHERRILL ROPER ENGINE.

Again, the complete insulation of the cylinder by the partition and non-conducting material used, and its removal from externally heated pipes, protect it from a higher temperature than that necessarily acquired by the expanded air supplied to it, thus securing the greatest economy in fuel, and avoiding subsequent loss of expansion and power, by cooling before it has performed its work. These are points of advantage of vital importance to the success of a hot-air engine where limited expansion can be obtained, which will be appreciated by all who may take the subject into consideration.

In all that relates to mechanical construction, the makers have left nothing undone, in respect to the use of the best materials and workmanship, to commend the engine to public favor. They have succeeded in producing an exceedingly simple, efficient and economical engine, compact and durable, that requires but trifling skill to operate, and that is free from the unavoidable objections incident to the use of steam, and free from the danger of explosion. Their adaptability for every form of service where moderate power is required will be apparent without further explanation.

The application of the Sherrill Roper air engine to hoisting machinery is one for which it is especially well adapted. The illustration shows very well the engine and its relation to the hoisting mechanism, without the necessity of describing the latter, which, in the absence of an engraving showing details, could not be done satisfactorily.

We may add that the makers have provided numerous appliances for insuring safety in the operation of their passenger elevators and other hoisting machinery. They claim for their engine in its special service the following meritorious features: "It uses no water, cannot explode, does not increase the rate of insurance, will do the hoisting of an ordinary store for less than fifty cents per day, and can be attended by any ordinary employé without seriously interfering with his other duties. It is in construction strong, simple and durable; and long and successful operation in driving elevators proves it to be unequaled in this field."

The Sherrill Roper Air Engine Co., of 91 and 93 Washington street, New York, are the manufacturers.—*Manufacturer and Builder.*