

**HAHL'S PNEUMATIC CLOCK.**

The Pneumatic (Synchronous) Clock Co., Chicago, are just putting on the market an exceedingly clever time-keeping device in which the problem of reliable and uniform time is most satisfactorily solved. The system includes a master clock that may be located in any desired place in a building, and a simple contrivance of dials that may be placed in as many different rooms or parts of the building according to necessity, all connected with the master clock by pneumatic tubes. One master clock can operate any number of secondary clocks throughout the building, and connection can be made with neighboring buildings. The master clock is run by gravity, sending an absolutely uniform impulse of air every minute through a system of pipes to all the subordinate clocks connected thereto, the hands of all of them moving in perfect unison.

Regarding the advantages of this system, the maker's direct attention to the fact that clocks impelled by electricity are subject to frequent disturbances, as batteries often give out, wires become crossed, lightning and the elements create disturbances, and in many cases the energy is derived from a motor or steam engine. In hydro-pneumatic systems the supply of water often gives out, pipes burst, and reliance is had for power upon engine or pump in constant motion, and steam systems are subject to the same interferences.

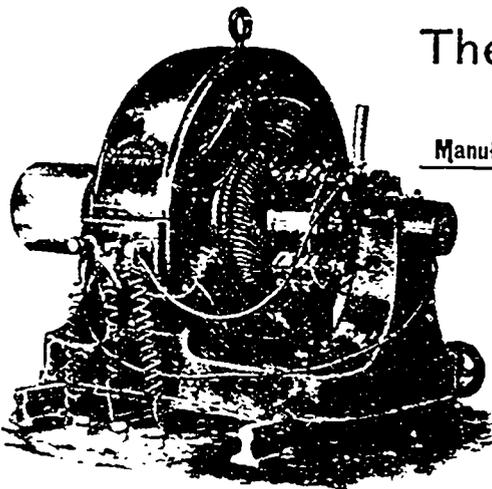
The free air system here alluded to entirely dispenses with the use of other elements, and by means of a simple contrivance insures uniform time under all conditions of temperature, atmospheric pressure and even leaky pipes. The master clock embodies a bellows or air chamber which at one minute intervals alternately compress and expand. The subordinate clocks are connected by suitable piping at any desired

distance from the master clock, the hands of which move one minute by the compression of the bellows, and the next minute by the expansion.

The system requires no skilled mechanic, electrician or engineer to operate it, all the attention required being the simple act of winding up once a week. The subordinate clocks have no springs or weights, require no winding, setting or repairing; are not disturbed by jarring of the wall and are not affected by changes of temperature or atmospheric conditions. We are informed that in one building in Chicago in which this system is installed, the aggregate length of piping through which air is impelled by the master clock to all the subsidiary clocks, is over 12,000 feet.

The uses to which the system can be put are almost innumerable. In schools a programme attachment is connected; in hospitals a striking or alarm attachment; in hotels alarms are placed in each bed-room; in factories a time recorder at watchman's stations, also employers time recorder—in fact the system is adapted to every field where accuracy and simplicity in time service is necessary.

Further information can be obtained by addressing The Pneumatic Clock Co., Chamber of Commerce Building, Chicago, Ill.



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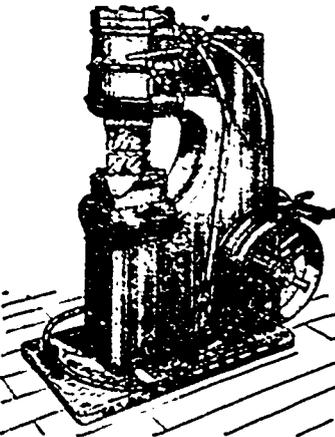
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How far the sales of the Goldie & McCulloch Co., of Galt, Ont., extend may be seen from the sales of two Ideal engines this year. One went to St. Francis Xavier College, Antigonish, N.S., the other to Wm. Cown & Co., Prince Albert, N.W.T. They have also sold three in Ontario.

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