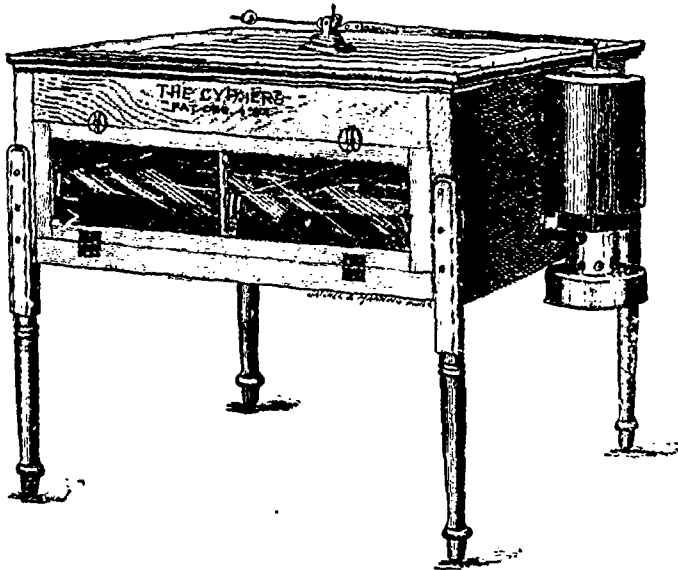


Incubator & Brooder Department



We invite correspondence for this important department of commercial poultry raising, which is growing so rapidly in Canada



THE CYPHERS INCUBATOR.

IN considering the question of incubators, the "Scientific American," recognized as the leading scientific paper of the world, has to say about The Cyphers Incubator:

"In all methods of incubation, the prime requisites are effective means for the regulation of heat and for the supply of fresh air. Heat by its action arouses life in an egg; pure air furnishes the oxygen by means of which necessary chemical changes are produced.

In natural incubation the bird, under normal conditions, maintains in the eggs the constant temperature required in hatching out the chicks. When this temperature loses its uniformity and the eggs are subjected to extremes of heat and cold, the embryo dies. The conditions under which a bird can successfully

hatch are therefore limited. In endeavoring to effect by artificial means what a bird accomplishes by natural means, it is of the utmost importance to provide some mechanical device by means of which a reasonably uniform temperature can be automatically maintained. It is furthermore essential that the heat be uniformly distributed and that proper means of ventilation be provided. These exacting conditions seem to be the most satisfactorily filled in the incubator made by The Cyphers Incubator Co., of Wayland, N.Y.

"The first requirement—the provision of an automatic heat regulating device—is met in the Cyphers Incubator by a positively acting sensitive thermostat composed of aluminum and steel. The thermostat is connected by means of a rod inclosed within a brass tube and passing through a cast head with a lever mounted on knife edge bearings. A counterpoise is adjustably secured to one end of the lever and a disk is attached to the other end of the lever and hung over the heater.

"As the temperature within the incubator rises above the degree desired, the aluminum, expanding more than the steel, is thrown toward the center by the use of sliding rivets, and assumes the bow-like form indicated in the illustration. The expansive force of the metal being transmitted to the connecting rod causes the lever to operate the disk, so that the heat may be regulated to conform with the required temperature.

"In order that the second condition—the uniform distribution of the heat—may be fulfilled, the manufacturers of the Cyphers incubator have devised a system according to which the warm air coming from the heater is first passed over and through a diaphragm into the hatching chamber, thence to be conveyed downwardly around the eggs and through a double porous diaphragm placed above a shallow chamber in the bottom of the incubator. After passing through the second diaphragm, the warm air, now impregnated with poisonous gases thrown off by the eggs, is conducted out of the incubator. The fresh, warm air, it will be observed, is evenly distributed over the whole area of the hatching chamber before entering. The downward movement is slow and positive, thus permitting the use of a larger volume of air than is employed in most incubators.