

sphere. In these days of advanced thought on poultry-culture it is recognized that one of the most important truths evolved is the necessity of fresh air in poultry-houses, but the necessity is just as great at every stage of a bird's life.

While a low temperature, which encourages huddling, and subsequent chilling, is a prolific cause of trouble, the chief reason for the failures recorded has been the provision of too great a heat in the brooder-box. In many cases failure to brood successfully has resulted from bad advice—either in regard to placing the pipes in the wrong position; closing in the box too much, in order to secure the desired heat by confining the air (instead of increasing the heat by means of more stove or lamp capacity); or placing the pipes too near the floor. The pipes should be at the back of the box, the front of the box should be absolutely open, and the pipes should be at least 7 in. above the floor, with a gradually increasing elevation to the end farthest from the source of heat. The most important improvements of recent days in regard to brooder-construction have been this location of the pipes at the back of the box, and permitting the front to be quite open.

I came across a case the other day where hundreds of ducklings were falling over like ninepins, being affected much the same as though they had sunstroke. The bad position of the pipes was palpably the trouble. These were in the centre of the box, and nearly on the ducklings' backs, and in getting away from the excessive heat the young ones too often ran to the back of the box and in this confined and heated space were in such an unhealthy condition that disorder was rapidly set up. Had the pipes been at the back of the box the ducklings would probably have been unaffected by the pipes being too close to the ground, as they would then have only been able to move to the front, and thereby have been in a safe position, having sufficient heat with the desirable fresh air.

Ducklings do not as a rule require artificial heat as long as chickens; but when taken from the incubator they require just as much heat and attention as chickens. After the first week they can do with less heat, which can be reduced and cut off altogether when the ducklings are three weeks old. Of course, much depends on the climatic conditions prevailing. Obviously heat should not be reduced during a cold snap, when every precaution is necessary in order to prevent the birds becoming chilled.

MARKING DUCKLINGS.

Disappointment will result from using the ordinary chicken-marker for ducklings. The holes will invariably grow out, though apparently obliterated marks may often be distinguished by holding the duck's foot in the line of light. The best way of placing a distinguishing-mark on the duck's foot for the determination of age, strain, &c., is to take a V-shaped piece out of the edge of the web of the foot. This should be