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forceful <sup>→ that one is →</sup> led to believe that the same procedure in nature is essentially employed in moderately solid soil and not in a mud or loose water consistent soil. Its bill is used as a pick and pry in the operation. The gape of the bill when used in probing is from  $\frac{1}{8}$  to  $1\frac{1}{2}$  inches. This partially opened bill is then thrust into the ground or debris of straw in quick succession with a good deal of force behind it. After sinking its drill down so far into the soil it will widen the hole by making a lateral swivel or jerk of the head which tears away the sides of the hole and disposes of any debris that might have accumulated in the operation. This somewhat blind testing of the soils is probably an attempt to locate a solid object which when located is brought to the surface, sometime with a good deal of effort upon the birds neck and bill by its prying practice or general excavation of the immediate area around the object. Have actually observed it to bring to light rocks and small objects which were buried 3 inches below the surface. One object measured  $\frac{1}{2}$  inch square. The most interesting interesting feature about this probing tactic is the partially opened bill while digging. If a leave or portion of a straw is pierced it is dislodged dislodged with a quick jerk of the head. It is very alert to the presence of anything that is thrown over its head or back, responding by ducking and jumping to one side.

3/22/40

Sandhill crane 50 dried raisins this morning in approx. 60 seconds. Took as many as 8 raisins in 5 seconds, one at a time. When raisins are placed on a plate it has a more difficult time in picking up the individual raisins, sometimes taking three picks with head turned to one side, before it gains them. When inspecting food as insects or worms held in the hand will barely touch it and when taking them only with a great expression of tenderness and lightness of a feather. However if one hold a coin or unnatural object in one hand and fingers will pull & pry for all its worth. It can pick up a small spider, which it truly relishes or an ant with all the lightness of touch and degree of accuracy of any insectivorous warbler. With raisins held in