circular chain or ladder of twenty feet diameter will contain about twenty jars of three gallons each—equalling a delivery of about two and a half gallons per jar, as there is generally a loss of water during the movement; therefore one complete revolution of the wheel would deliver fifty gallons into the reservoir.

The wheel is turned by a simple contrivance of wooden cogs and drivers, worked by a long revolving lever, to which, for a powerful machine such as I have described, a pair of mules or oxen would be necessary. A child sits upon the pole or lever and keeps the animals to their work.

There is no specified limit to the depth at which this instrument can work, as it must depend upon the length of chain and the number of jars, which of course increase the weight and strain upon the machinery and animals. In Cyprus, where the water is generally near the surface, the advantages are obvious, and I feel convinced that no modern invention is so well adapted for the Cypriote cultivator.

The cost of erection of such a machine complete, together with the sinking of the pit, is calculated, at an average of localities, as £12; a pair of oxen will cost £10: thus the water-wheel in working order will amount to £22. One wheel will irrigate eighty donums, or about forty acres of cereals, but the same instrument would only suffice for about six acres of garden ground, which requires a more constant supply of water. It may therefore be understood that in calculating the power of a water-wheel, various conditions must be considered, and I shall confine myself to the farm, upon which it will be necessary to establish one water-wheel or *sakyœah* for every forty acres; this entails a first outlay of eleven shillings per acre,