

on such work—that is to say, he is unwilling to confer a benefit on others, even though he reaps a greater one himself. But there is a deeper reason still. The repair of roads requires earth, and in a land where every available square foot is necessary for tillage, who is to furnish the earth? Nobody. And therefore it never is furnished. Every missionary is able to perceive that, despite the industry of the Chinese, they are laboring under great disadvantages, owing to the lack of good tools; but he can seldom introduce better tools into actual use, either because they are far too expensive for the narrow means of a single farmer, or because, while they might be used for several families, jealousy and selfishness would prevent the experiment from becoming a success. One of the clumsiest of the Chinese machines is the set of rollers by which cotton is very slowly and imperfectly seeded, but a foreign machine cannot be introduced to take the place of the other, for the reasons already given, as we have had opportunity to observe. Every foreigner who has travelled in the cotton States of America, and afterward in the cotton-growing Chinese provinces, is struck with the thought of introducing the American cotton plant into China. This has been done many times, but so far as we know the experiment has never succeeded. The imported plant grows rank and tall, but has the fatal defect of bearing little or no cotton; or if it does, after a season or two the seed must be renewed, which is a permanent check on the anticipated improvement. The same has been found to be the case with grains. Yet tobacco, maize, the peanut, a variety of beet, cabbage, and the potato have all been introduced into Northern China during the present dynasty, and all of them are well acclimated. Yet every such innovation has to fight for its existence for a long time, and there are probably few plants that can spring at once into favor as the poppy has done—a type of the persistence of evil and its universal adaptations.

Conservatism and suspicion are in all Oriental countries twin sisters, which resent any interference with what already exists. It is due to these traits that one is so often struck with the fact that contrivances for saving labor, which have long been in use in one region, are altogether unknown in other regions not far distant. An instance of this sort is to be found in a district in the province of Chihli, where the common form of water-wheel is fitted with buckets drawn up by a rope coiled on a windlass turned by a donkey. The machinery is rude, the buckets ill made and leaky, and the waste of power very great, but, on the whole, this is much more economical than drawing water by hand. Yet in a belt of country along the Grand Canal, only about two days' journey from the district where water-wheels are used, these devices are wholly unknown, and the only method of irrigation is either from wells with a windlass worked by men, or by two men tossing water from wicker baskets from the river into a pool above, and from thence to the field to be irrigated, thus using the labor of four men and spilling about half the water in transit. Within a few years, however, the water-wheel in a very imperfect form has made