cotton, dust, and dirt drawn by a down-draught into waste boxes below. The cotton is removed from the cards at intervals by the strippers, and frequently the cards require cleaning on account of the dust and dirt collecting between the small projecting spikes. This is also carried out by the strippers by means of hand brushes. As the machine is not working there is no down-draught to carry away the dust which is removed, and thus a considerable amount may be inhaled in the process of cleaning, and by this means the infection may be introduced into the system in these cases.

The cotton used at this mill was Egyptian, but it was not possible to ascertain the exact source from whence it came.

The primary and contact cases, with one exception, had all been vaccinated in infancy, but none had been re-vaccinated.

The fact that two employees working at the same machine contracted the disease at the same time (the rash appearing in each case on the same day) is, I think, strong presumptive evidence that the material upon which they were working was the source of infection; and that any source of infection outside the mill may at once be excluded, especially as they lived a considerable distance from each other and never met except during their work at the mill.

In gathering the cotton the pickers, who are natives of both sexes, carry large open-mouthed bags, which are slung round their necks and hang in front of the body. They gather the cotton with both hands as they pass down the rows in the field, and deposit it in these bags. An almost universal habit obtains among the pickers of both sexes of chewing tobacco, and in the States a root known as "waheyawa." During their work they indulge constantly in the habit of expectoration, and very frequently some of the expectorated material enters the bags containing the raw cotton. Chewing and expectoration also occurs when conveying the cotton in waggons to the gin, in the process of ginning, and also when shipping the baled cotton at the docks.

Precautions are taken as far as possible to prevent infected persons from gathering cotton in the cotton fields, and from handling it at the points of export. When smallpox, however, is prevalent among natives, quite a large proportion of the cases are very mild. "Missed" cases are, therefore, frequent, and these continue to work in the cotton fields throughout an attack of the disease, so that it is impossible entirely to avoid contingency of some of the cotton becoming infected in the process of gathering .

In the report of the New Orleans Board of Health for 1907, referring to smallpox, it is stated that "the bulk of the infection was due to repeated importation of cases both in the incubative and the eruptive stage, the spread of infection from individual cases being limited in most instances to one or two cases of the disease at most." During the year 234 cases occurred in New Orleans, and it will be thus seen from the above statement what a large number of cases "both in the incubative and eruptive stage" unavoidably enter the towns. The fact again that only ten deaths occurred among the 234 cases in the city of New Orleans points to the mild nature of the disease. In the States a prevalent superstition is current among the natives that the white medicine man is endowed with witchcraft, so that natives smitten with disease of any kind prefer to hide away and take their chances unattended rather than come within the grasp of the doctor. These facts, I think, will make it clear how extremely difficult, if not almost impossible, it is to control such a disease as smallpox among natives in large cotton-growing districts. Further, the existence of the undesirable habits of chewing and expectoration which have already been referred to under such circumstances will also make clear the impossibility to avoid raw cotton becoming infected with smallpox.

Dr. Ross, medical officer of health for Cairo, has been kind enough to send me a statement showing the incidence of smallpox in Cairo, Alexandria, and Port Said during the past four years. He states that "the period of comparative immunity in Egypt is now about nine years." The last outbreak began in Alexandria in 1907, when 504 cases occurred; it then spread to Port Said in March, 1908, and to Cairo in December, 1908, where, during the early part of 1909, 447 cases were notified, with 200 deaths.

Smallpox in Cairo, Alexandria and Port Said.

Date	Cairo		Alexanderia		Port Said	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
1906	36	9	80	41	7	1
1907	62	24	504	283	18	7
1908	269	95	35	19	42	19
1909 (January to July)	447	200	..	..	..	..