"Put 8 gallons of water in kettle and start fire. Place lime in kettle. After slaking is well started, add the dry sulphur and mix thoroughly, adding enough water to maintain a thin paste, which requires about 5 gallons. After the slaking and mixing is completed, add water to the height of 40 gallons on the measuring stick, bring to a boil and stir until the sulphury scum practically disappears. Then add water (preferably, but not necessarily, hot) to the 55 gallon height, and boil to 45 gallons. The material should be kept well stirred, especially during the early stages of the process, and any lumps of sulphur or lime should be thoroughly broken up.

"The total time of actual boiling should be about one hour, though a ten-minute variation either way is not objectionable providing the sulphur is evidently dissolved. This fact is best determined by dipping and slowly pouring some of the material. The amounts of water indicated above are ample for one hour's fairly vigorous boiling, with the finishing volumes as indicated. If it is not at the desired height at the close, it may be made so by more water or more boiling, and either the amount of water in the second addition or the vigor of boiling can be so modified in later trials as to enable the total to be brought to the desired height approximately at the end of the hour.

"The finished product may be immediately poured or strained into a barrel or settling tank or into the spray tank. The straining is merely a safeguard to prevent any possible clogging because of imperfect materials or failure to break lumps in the sulphur. When properly made the amount of sediment left in the strainer is insignificant, being less than one per cent., as shown in Table I, and may be thrown away. To avoid any considerable loss of materials, however, the sediment in the strainer can be washed with part of the water used in making the next lot, simply pouring the water through the strainer into the kettle, and any lumps of sulphur discovered may be broken up and used again.

"If the straining is not done, the whole product may be put into a settling tank or barrel, and the clear liquid drawn off later as required. This process, however, is likely to lose efficient liquids in the sludge, as well as the fine sludge itself, which may be of value in several ways, and is of no apparent hindrance in the spraying.

"The crust which forms on the finished material is prevented by immediately covering the solution with a layer of oil about an eighth of an inch thick, and avoiding unnecessary exposure to air in the transfer from kettle to storage tank. An ordinary paraffine oil was very satisfactory in our work, but there is no reason be believe that any other oil, not injurious to trees nor likely to take fire at boiling temperatures, may be used with equal success.

"The crust may also be prevented by immediate storage in tight, closed vessels, filling them completely. But partially filled vessels are likely to develop some crust upon continual exposure."