

It will be seen that the Moore system requires three filter-boxes against only two needed in the Butters, only one storage-vat being needed, and that for pulp in the first instance, as against two in the second; and a 20-h.p. motor against two 10-h.p. The main difference in the cost of installation is in the crane, which will add 35% to the total cost of the plant. The above equipments comprise an equal filtering-area in each case. The Moore system will handle 22 charges in 12 hours, and the Butters system 10 charges in 12 hr. 44 minutes.

To summarize: The operating costs of either system are about equal, as are also the maintenance and repairs.

The installation cost for the Moore system is 35% greater than the Butters system for an equal filtering-area.

The capacity is 50% greater in the Moore system than in the Butters system for an equal filtering-area.

The efficiency of the Moore system for the recovery of pregnant solution with the least amount of loss and dilution, is higher than the Butters system for reasons previously given.

There is no doubt but that given ideal topographical conditions, the Butters system can be a great deal better arranged than here at the Combination plant.

Where sufficient elevation is available to allow of ample pulp and water storage above filter-boxes, and also the same ample storage below (to again allow for the storage of pulp and water), a great saving of time is obtainable by allowing the pulp and water to flow in and out of the filter-box rapidly. This would necessarily greatly increase the cost of installation. Under such conditions the amount of pulp and water to be moved back up hill after each cycle of operations would be performed over a long period of time and not obstruct the filtering operation, instead of a short period during which filtering operations must cease, as at the Combination plant.

But even under these conditions, which have materially lessened the time consumed and also improved the conditions for displacement by removing the pulp from around the filters rapidly and getting them quickly submerged in the displacing medium, we have not eliminated the obvious opportunities for loss, that is, by alternately running pregnant solution and water through the same pumps and pipes and into the same receptacles,