time, but which would remain in suspension with the slighest agitation. This suspended tar becomes a serious nuisance in the operation of the ammonia stills. The ammonia liquor collected from the treater gas was entirely free from particles of suspended tar.

No conclusions were reached as to the effect of electrical precipitation without cooling, on the problem of naphthalene deposits. Interesting speculations on this question are given in the paper by Professor White. Accurate data can be obtained only by a continuous run on the total gas produced in the plant.

## CONCLUSION.

Successful tests of the process of electrical precipitation for the de-tarring of gas on a commercial scale have thus been made in wood, coal, and petroleum distillation plants. Various advantages peculiar to this process are mentioned in the course of this paper. The outstanding fact is that installation and renewal costs of by-product collection apparatus may be much reduced, the by-products themselves can be collected in much more desirable condition for refining, and operating costs not affected by the use of electrical precipitation. The results of the tests are so satisfactory, both technically and financially, that it is highly desirable that installations of one of each of the various types of distillation plants be made at once. It is to be urged that the work be not undertaken simply to provide an auxiliary to present systems; but essentially for the purpose of developing a more efficient by-product collection process.

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