

**PINE PLANTATIONS
ON THE SAND-
WASTES OF FRANCE**

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Pine Plantations on the Sand-Wastes of France by John Croumbie Brown

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JOHN CROUMBIE BROWN

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ON THE
SAND-WASTES OF FRANCE.

COMPILED BY
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P R E F A C E.

THE preparation of this volume for the press was undertaken in consequence of a statement in the *Standard and Mail*, a Capetown paper, of the 22nd July, 1876, to the effect that in the estimates submitted to Parliament £1,000 had been put down for the Cape Flats, it was supposed with a view to its being employed in carrying out planting operations as a means of reclaiming the sandy tracts beyond Salt River.

In view of the success which has followed the planting of the Landes of Gascony and the Gironde with the maritime pine, it might seem that nothing now can be required in order to arrest and utilise drift-sands, but to plant them judiciously with that tree. But, happily, I may say, the failure of such plantations on the Landes of La Sologne comes to warn us against any such rash generalisation. And the observation of sand downs in Britain, and sand plains elsewhere, show that herbs, carices, reeds, and grasses have operated extensively in arresting effectually, and, according to their measures, in utilising what otherwise would have been barren and destructive sand-wastes.

Looking at the subject generally, all that I consider established by the pine plantations on the sand-wastes of France is the practicability of arresting and utilising sand-drifts by means of plantations of trees. What has been accomplished there we may legitimately infer may be effected elsewhere, not necessarily by the same means, but by means as appropriate, if they can be discovered. But while this may be all that is established there is much more suggested.

And still more might be found to be suggested by a study of the whole of the sand-wastes of Europe, and of the natural history of sand, its composition, its formation, and its aggregation on the shore, in dunes, in drifts, in sand-wastes, and in sand plains, and of the various genera and species of plants growing upon it, and of planta-