

**FARM IMPLEMENTS, AND THE PRINCIPLES OF  
THEIR CONSTRUCTION AND USE; AN  
ELEMENTARY AND FAMILIAR TREATISE ON  
MECHANICS, AND ON NATURAL PHILOSOPHY  
GENERALLY, AS APPLIED TO THE ORDINARY  
PRACTICE OF AGRICULTURE, WITH 200  
ENGRAVED ILLUSTRATIONS**

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Farm implements, and the principles of their construction and use; An elementary and familiar treatise on mechanics, and on natural philosophy generally, as applied to the ordinary practice of agriculture, with 200 engraved illustrations by John J. Thomas

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**JOHN J. THOMAS**

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# FARM IMPLEMENTS,

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ELEMENTARY AND FAMILIAR TREATISE

## ON MECHANICS,

AND ON NATURAL PHILOSOPHY GENERALLY, AS APPLIED  
TO THE ORDINARY PRACTICES OF  
AGRICULTURE.

WITH 200 ENGRAVED ILLUSTRATIONS.

BY JOHN J. THOMAS.

"We should like to see this work printed, bound, and hung up in every workshop, tool-room, and farmer's back-sheaf in the country. It gives the reason and explains the action of mechanical powers, and the forces of nature generally, with illustrations so directly drawn from the farmer's daily routine, that it gives a direct meaning and value to every point, rarely found in text-books."—*Dwight's Review of the First Edition.*

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## P R E F A C E.

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THIS work, in its original form, was published in the Transactions of the New York State Agricultural Society for 1850, under the title of "AGRICULTURAL DYNAMICS," or the Science of Farm Forces. The present edition is prepared on the basis of the original essay, and is thoroughly revised and greatly enlarged, with the addition of more than double the former number of illustrations.

It comprehends those branches of Natural Philosophy known as Mechanics, Hydrodynamics, Pneumatics, and Heat, in their more common application to the practices of modern improved farming; and, so far as practicable, technical words and phrases have been avoided, and the whole rendered simple and intelligible to ordinary readers.

The leading principles have been derived from the existing stock of knowledge; but no treatise on these subjects, as specially applied to agriculture, having before appeared, the various examples of the application of those principles to the structure and use of farm implements, and to the farmer's daily routine, are mostly original.

For the purpose of adapting the work to schools, wherever it may be desirable, it is divided into sections, each of sufficient length for a single recitation.



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