

**ROBERT FULTON:
HIS LIFE AND ITS
RESULTS**

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Robert Fulton: his life and its results by Robert H. Thurston

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ROBERT H. THURSTON

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R. Fulton

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"MAKERS OF AMERICA"



Biog.

ROBERT FULTON

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HIS LIFE AND ITS RESULTS

BY

ROBERT H. THURSTON



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ROBERT FULTON.

I.

OLD LEGENDS. — STEAM IN EARLIER TIMES. —
JAMES WATT.

ROBERT FULTON has often, if not generally, been assumed to have been the inventor of the steamboat, as Watt is generally supposed to be the inventor of the steam-engine, which constitutes its motive apparatus. But this notion is quite incorrect. The invention of the steam-engine and that of the steamboat alike are the results of the inventive genius, not of any one man or of any dozen men, but have been the outcome of the inventive powers of the human race, exerted at intervals throughout the whole period of recorded history. An invention is usually, or is at least assumed to be, the product of the genius of some great mechanic, acting, as did the genii of old, by a single effort of the mysterious power. In this sense of the word, the steam-engine was never invented; rather it is the culmination of a long series of inventions of detail, and of improvements upon the earliest crude conceptions, and is the product of growth in a definite direction, and toward a now well-defined end. But while Fulton was not the inventor of the steamboat, and while James Watt was not the

inventor of the steam-engine, in a proper sense, it is the unquestionable fact that the latter was the first to secure a general introduction of the machine into practical use; and the former was the first to make the steamboat a commercial success, and to make its ultimate and permanent employment for marine transportation sure. As an inventor, Fulton accomplished far less than Watt; in fact, he did comparatively little in this realm of intellect. Watt invented many improvements of the steam-engine, and left it in vastly better form than when he found it, as it came from the hands of his predecessors, Newcomen and Calley. He gave the already well-shaped machine the separate condenser, the steam-jacket, the double-acting form, the rotative type, the expansive system, the governor, and the "engineer's stethoscope,"—the indicator. Fulton did nothing to modify the engine, or to improve the steamboat even. He simply took the products of the genius of other mechanics, and set them at work, in combination, and then applied the already known steamboat, in his more satisfactorily proportioned form, to a variety of useful purposes, and with final success. It is this which constitutes Fulton's claim upon the gratitude and the remembrance of the nations. And it is quite enough.

The knowledge of the expansive power of steam was of earlier date than the Christian era; forms of steam-engine antedated Watt by two thousand years; the modern type of steam-engine was the invention of Newcomen rather than of Watt, and preceded that famous improver by nearly a century; the steamboat