

**BALLOONS
AIRSHIPS AND
FLYING MACHINES**

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Balloons Airships and Flying Machines by Gertrude Bacon

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GERTRUDE BACON

**BALLOONS
AIRSHIPS AND
FLYING MACHINES**



THE AUTHORESS, HER FATHER, AND MR. SPENCE
MAKING AN ASCENT.

Frontispiece.

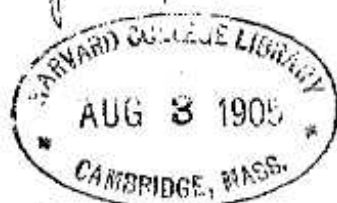
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BALLOONS AIRSHIPS AND FLYING MACHINES

BY
GERTRUDE BACON

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BALLOONS, AIRSHIPS, AND FLYING MACHINES

CHAPTER I

THE ORIGIN OF BALLOONING

ONE November night in the year 1782, so the story runs, two brothers sat over their winter fire in the little French town of Annonay, watching the grey smoke-wreaths from the hearth curl up the wide chimney. Their names were Stephen and Joseph Montgolfier, they were papermakers by trade, and were noted as possessing thoughtful minds and a deep interest in all scientific knowledge and new discovery. Before that night — a memorable night, as it was to prove—hundreds of millions of people had watched the rising smoke-wreaths of their fires without drawing any special inspiration from the fact; but on this particular occasion, as Stephen, the younger of the brothers, sat and gazed at the familiar sight, the question flashed across his mind, “What is the hidden power that makes those curling smoke-wreaths rise upwards, and

could I not employ it to make other things rise also?"

Then and there the brothers resolved on an



MEDALLION SHOWING BROTHERS MONTGOLFIER.

experiment. They made themselves a small fire of some light fuel in a little tin tray or chafing-dish, and over the smoke of it they held a large paper-bag. And to their delight they saw the bag fill out and make a feeble