

Tucholsky Wagner Zola Scott  
Turgenev Wallace Fonatne Sydon Freud Schlegel  
Twain Walther von der Vogelweide Fouqué Friedrich II. von Preußen  
Weber Freiligrath Frey  
Fechner Fichte Weiße Rose von Fallersleben Kant Ernst Richthofen Frommel  
Engels Fielding Hölderlin Eichendorff Tacitus Dumas  
Fehrs Faber Flaubert Eliasberg Eliot Zweig Ebner Eschenbach  
Feuerbach Maximilian I. von Habsburg Fock Ewald Vergil  
Goethe Elisabeth von Österreich London  
Mendelssohn Balzac Shakespeare Rathenau Dostojewski Ganghofer  
Trackl Stevenson Lichtenberg Doyle Gjellerup  
Mommsen Thoma Tolstoi Lenz Hambruch Droste-Hülshoff  
Dach Thoma von Arnim Hägele Hanrieder Hauptmann Humboldt  
Karrillon Reuter Verne Rousseau Hagen Hauff Baudelaire Gautier  
Garschin Defoe Descartes Hebbel Hegel Kussmaul Herder  
Damaschke Wolfram von Eschenbach Dickens Schopenhauer Bebel Proust  
Bronner Darwin Melville Grimm Jerome Rilke George  
Campe Horváth Aristoteles Voltaire Federer Herodot  
Bismarck Vigny Gengenbach Barlach Heine Grillparzer Georgy  
Storm Casanova Lessing Tersteegen Langbein Gilm Gryphius  
Chamberlain Schiller Lafontaine Kralik Iffland Sokrates  
Brentano Strachwitz Katharina II. von Rußland Bellamy Gerstäcker Raabe Gibbon Tschchow  
Löns Hesse Hoffmann Gogol Wilde Gleim Vulpius  
Luther Heym Hofmannsthal Klee Hölty Morgenstern Goedicke  
Roth Heyse Klopstock Puschkin Homer Kleist Mörike Musil  
Luxemburg La Roche Horaz Kraus  
Machiavelli Kierkegaard Kraft Kraus  
Navarra Aurel Musset Lamprecht Kind Kirchhoff Hugo Moltke  
Nestroy Marie de France  
Nietzsche Nansen Laotse Ipsen Liebknecht Ringelnatz  
Marx Lassalle Gorki Klett Leibniz  
von Ossietzky May vom Stein Lawrence Irving  
Petalozzi Platon Pückler Michelangelo Knigge Kock Kafka  
Sachs Poe Liebermann Kock Korolenko  
de Sade Praetorius Mistral Zetkin



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# **Fire Prevention and Fire Extinction**

James Braidwood

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*Jas Braidwood*

Jas. Braidwood



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## EDITOR'S PREFACE.

The appearance at the beginning of last year, in the Annual Report of the Institution of Civil Engineers for 1861 and 1862, of a short memoir of Mr. Braidwood, suggested the publication of a more extended account of the life of the late head of the London Fire Brigade, combined with his opinions upon the subject of his profession.

These opinions are comprised in a work on "Fire Engines, and the Training of Firemen," published in Edinburgh in 1830; two papers upon cognate subjects read before the Institution of Civil Engineers, two similar papers read before the Society of Arts, and in a variety of reports upon public buildings, warehouses, &c. While regretting the great loss that the public has sustained, in being deprived by Mr. Braidwood's sudden death of a complete record of his long and varied London experience, it has been considered advisable to republish the above materials arranged in a systematic form, omitting only such parts as the Author's more matured experience rendered desirable, but confining the whole to his own words.

London,

*June, 1866.*



## AUTHOR'S PREFACE

*To his work "On the Construction of Fire-Engines and Apparatus; the Training of Firemen; and the Method of Proceeding in cases of Fire," published in Edinburgh, in 1830.*

Not having been able to find any work on Fire-Engines in the English language, I have been led to publish the following remarks, in the hope of inducing others to give further information on the subject.

For the style of the work I make no apology; and as I presume no one will read it except for the purpose of gaining information, my aim will be obtained if I shall have succeeded in imparting it, or in directing the public attention to the advantage which may be derived from the systematic training of Firemen.



## MEMOIR

## OF

## JAMES BRAIDWOOD.

The history of mankind, from the earliest times, has been one of alternate peace and war with fire. The immeasurable value of its obedience, and the fearful consequences of its insubordination, have, in all ages, made its due subjection one of the most important conditions of even human existence itself. As camps and trading stations grew into populous cities, the dangers of fire were both multiplied and aggravated. Its ravages in the ancient capitals of the world are matters of history; and it is established that something like organization was extended to the means then employed for suppressing conflagrations. Even the fire-engine itself, in a practicable, although imperfect form, was described and illustrated by a sectional working drawing, by Hero of Alexandria, in a book written by him more than one hundred years before the Christian era. In its many translations, from the original Greek into Latin and into modern tongues, Hero's book, with its remarkable series of drawings, still occupies a place in the mechanical literature of our own time. But, although the construction of the fire-engine was thus known two thousand years ago, we have no actual evidence of its use until within the last two centuries; [Pg 6] and within the whole compass of English history, at least, we know that nothing like discipline and organization, in the modern sense of the terms, were introduced into the management of fire apparatus until a time quite within the recollection of the middle-aged men of our own day. If there be anything apparently improbable in this fact, we need only recollect that many of the grandest triumphs of human genius, with which we are already so familiar, are not yet forty years old. The modern system of English fire brigades belongs wholly to the period of railways, steam navigation, and electric telegraphs, and it owes nearly all to the genius and disciplined heroism of a single individual, James Braidwood, who, but little more than four years ago, fell—as nobly for himself as sadly for others—at his chosen

post of duty. What, when he first gave his energies—indeed, his whole heart to it, was but the rough and unskilful employment of the fireman, became under Mr. Braidwood's command and his infusing spirit of order and intelligence, as distinguished from reckless daring, a noble pursuit, almost rising in dignity to a profession, and indeed acknowledged as such by many, and significantly, although indirectly, by Royalty itself.

Until the year 1833, not only the parish engines of the metropolis, numbering, as they did, about three hundred, but the engines also of the Fire Insurance Companies, were comparatively inefficient and often out of order, while they were also under the most diverse, if not irresponsible management. There were no really trained firemen, and those who controlled and worked the engines were often in antagonism with each other than acting in concert. The parish engines were in the care of the beadles, and in one case a beadle's [Pg 7] widow, Mrs. Smith, for some years commanded one of the city engines. The energies of each band of firemen were commonly reserved for the protection of property only in which their own insurance company or parish was immediately interested. As a rule, whatever water was thrown upon a burning building was dashed against the walls, windows, and roof from the outside only, very little if any really reaching the actual seat of the fire within. As a consequence, fires, which are now quickly "got under," were then left to burn themselves out, the spreading of the fire being prevented either by deluging the contiguous buildings with water, or by pulling them down altogether.

James Braidwood was born in Edinburgh in the year 1800. His father was a well-known upholsterer and builder, who appears to have chosen for his son the profession of a surveyor. To this end he was entered at the High School, then under the rectorship of Mr. (afterwards Professor) Pillans, and here, and subsequently under private masters, the youth received a sound education in the branches most appropriate to his intended pursuit in life. He was for some time engaged in his father's business, and thereby gained an amount of practical knowledge, which was of, perhaps, as much service to him in his subsequent career as a fireman, as it would have been had he adopted the profession originally chosen for him. Young Braidwood was an apt student, a fact, perhaps, sufficiently