## A CHRONOLOGY OF PAPER AND PAPER-MAKING

Published @ 2017 Trieste Publishing Pty Ltd

#### ISBN 9780649481156

A Chronology of Paper and Paper-Making by J. Munsell

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

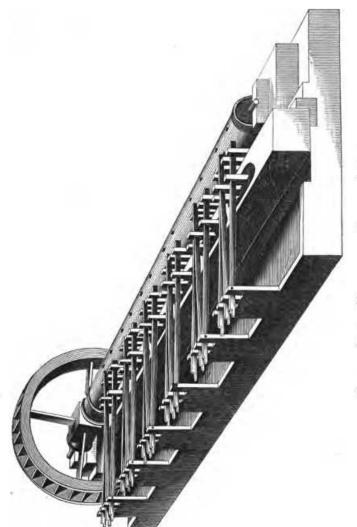
This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

## J. MUNSELL

# A CHRONOLOGY OF PAPER AND PAPER-MAKING





VIEW OF A STAMPING MACHINE OF THE FIFTEENTH CENTURY.

From Breikopf's Linfairing des Leidenspapieres.

## CHRONOLOGY

## PAPER AND PAPER-MAKING.

OF

BY J. MUNSELL.

THIRD EDITION.



ALBANY: J. MUNSELL, 78 STATE STREET. 1864.

### PREFACE.

The facts embraced in the following pages have been gathered from so many sources, that it would materially encumber the work to give authorities. The valuable essay of Breitkopf,\* published in 1784, and the interesting history of Matthias Koops,† who made extensive experiments in England in the beginning of the present century, have furnished numerous data. The Jury Report of the London Industrial Exhibition has been used to a considerable extent for more modern statistics of European countries. For the remainder, almost every available work has been consulted, English, French, German, and Nederdutch.

It will be seen by the number of experiments made for the attainment of the same object by the

Versuch, den Ursprung der Spielkarten, die Einfuebrung des Leinenpapiers, etc., Leipzig, 1784, 4to.

<sup>†</sup> Historical Account of the Substances which have been used to describe Events, and to convey Ideas, from the earliest Date to the Invention of Paper, London, 1801, 8vo.

same means in England and America especially, that paper-makers have had but little intercommunica-There is great want of an American work, practical and experimental, on this most important art. An account of the modes that have been pursued by the experimenters who have so long and arduously sought after a substitute for rags in the manufacture of paper, would of itself form an instructive volume. These experiments began in Europe more than a century ago, and were induced by the same cause which has ever since given rise to efforts in the same direction, the scarcity of rags. They have continually exercised the minds of manufacturers and others in this country during the present century, and the records of the patent office attest the fertility of invention which has been expended in this field of discovery. The following list of substances which have been experimented upon, and of which it is claimed that paper has been produced of fair qualities, will show in a measure the extent of the effort which has been made to procure material to meet the increasing demand for paper fabrics.

Animal substances, Asbestos,
Alga marina, Aspen,
Asparagus, Aloe,

### PREFACE.

Arroche, Dwarf palm,
Bamboo, Erigerone,
Bark, Elm,

Bullen of plants, Esparto grass,

Blue grass, Flax,
Broom corn, Floss Silk,
Brazilian grass, Flags,
Bavarian peat, Fir,

Bass wood, Frog spittle,
Bracken, Flag leaves,
Burdock, Grape vines,
Beech, Gutta percha,
Bagging, Gnaphalium,
Banana leaves, Hollyhock,
Bran, Hop vines,

Beet root, Hibiscus esculentus,

Coton du peuplier, Hay,

Cabbage stumps, Hornets' nests,

Couch grass, Hemp,

Cotton waste, Ivory shavings,

Corn husks, Jute,

Carduus nutans, Lily of the valley, Clematite, Leather cuttings,

Conferva, Lime,
Cotton stalks, Leaves,
Cocoanut husks, Linden,

Decayed wood, Liquorice wood,

Rushes,

#### PREFACE.

Muscovy mats, Silk, Mulberry, Satin, Moth wort, Spindle tree, Masse d'eau, Saw dust, Marsh mallow, Stone, Scotch ferns, Moss, Manures, Sultana bark, Mummy cloth, Southern cane, Nettles, Swingle tow, Seratula ervensis, Old sacks, Oakum, Sea weed, Oak, Spartum, Paste board scraps, Sorghum, Pine shavings, Turkish cornstalks, Printed waste, Tan, Tow, Plantain, Peat, Thistles, Pine, Ulva marina, Wheat straw, Pappus, Wayfaring tree, Poplar, Rice straw, Willow twigs, Willow, Raw cotton, White wood, Ropes, Water broom, Reeds,

Wool,

In short, almost every thing has undergone a test. Not only have numerous patents-been procured for useless modes of producing paper from many of the above articles, but costly machinery has in some cases been erected to assist in bringing them into use, after they had been experimented upon repeatedly and condemned. This will continue to be the case until something is published on the subject in such a shape as to be accessible to the trade. It is hardly necessary to say that this work does not aim to supply the desideratum, yet to a considerable extent it will serve as an index to those experiments. It also indicates what has been done towards bringing machinery to perfection, while those efforts were being made to discover new materials for paper stock. It is in this department that great results have been attained. In a little more than a quarter of a century, the machines have entirely superseded the diminutive hand-mills which sparsely dotted the country, and gigantic establishments have risen up in their places. Paper-mill villages, and banking institutions even, have grown out of this flourishing branch of industrial art, and we behold with satisfaction and amazement, what has been brought about by the aid of a commodity so insignificant in the eyes of the world as linen and cotton rags.