

**GLUES AND GELATINE, A
PRACTICAL TREATISE ON
THE METHODS OF TESTING
AND USE**

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Glues and gelatine, a practical treatise on the methods of testing and use by R. Livingston Fernbach

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R. LIVINGSTON FERNBACH

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REF

Glues and Gelatine

A PRACTICAL TREATISE
ON THE
METHODS OF TESTING AND USE

BY
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PREFACE

THIS work purports to be a practical treatise on the testing and examination of glue and gelatine. It aims to acquaint the consumer with the methods employed by representative American manufacturers in grading and distinguishing between glues and the considerations governing their valuation. It offers to the chemist, who is too often unfamiliar with these products, although experienced in other lines, test methods chosen with a view to determining the value of a glue for a specific purpose, rather than merely defining its abstract chemical characteristics.

While the subject of glue is by no means unrepresented in technical literature, it has been dealt with chiefly from the standpoint of manufacture; while the intelligent testing of glue — that which must determine its commercial value, and which, furthermore, is the only means by which the manufacturer himself is enabled to assign a grade and a price to his product, has been given scant consideration; the subject being dismissed with brief reference to methods at once obsolete and inaccurate.

The futility of attempting a treatise on the manufacture of glue has long been manifest to the author. Theory and practice differ radically in the production of this article, more so, perhaps, than in the case of any other. It has been the experience of more than one

trained chemist to attempt the manufacture of glue, relying for guidance solely upon the chemical principles thought to be involved, and the results have been ludicrous. Tersely stated, the art of making glue consists in knowing what to do and how to do it; and this state of enlightenment presupposes long study under some one who, in turn, acquired the art from an experienced teacher. As certain manufacturing methods, however, leave clues in the finished product that aid in the determination of its commercial value, brief reference has been made to the principles underlying the manufacture of glue and gelatine.

Nor do I enter into any protracted discussion of the probable constitution of gluten or gelatin and allied substances; nor of the chemical changes undergone by the glue-yielding materials in the course of manufacture. As enunciated in the contemporary literature of the subject, these principles are at best premises argued from conclusions — mere opinions that have yet to be substantiated in actual practice. They have absolutely no bearing upon the fitness or unfitness of a glue for a given purpose, nor do they aid either chemist or consumer in determining which of two glues is the better.

Upwards of fifty million pounds of glue, foreign and domestic, are consumed annually in the United States, in such industries as the manufacture of veneers, wall paper, matches, paper boxes, artificial leather, painters' size, patent sizings, woodwork and a host of others. Despite this vast consumption, it is safe to assert that 80 per cent of glue users have but the vaguest conception of its properties and are guided largely by the

manufacturer or dealer in the selection of their supply. In the main, their confidence is not abused; but in many instances they are victims of unscrupulous salesmen. Some go through the formality of "testing," employing methods the recital of which would strain the reader's credulity. He who fully understands the nature and properties of the material for which he annually expends many hundreds of dollars is indeed *rara avis*.

To afford the uninitiated consumer a rational means of protection is the chief aim of this work. It is designed, also, to aid the chemist unfamiliar with authentic test methods, whose sole recourse, when appealed to for an opinion respecting glue, has invariably been analysis, which fails absolutely of the desired result. In the interests of the former, I have endeavored to describe the test methods in a manner that will permit of their accurate execution by any one of intelligence. At the same time, I have been at pains not to deprive them of their technical character in order that the chemist may appreciate their adaptability to the requirement of the average commercial laboratory.

The day is not far distant when glue and gelatine will be purchased on specification; and such a trade condition will necessitate the adoption of a uniform system of tests throughout the United States. In the interval, it is the earnest hope of the author that the suggestions herein contained may serve to reduce to the semblance of uniformity the present widely divergent processes for the assay of glue and gelatine.

PATERSON, N. J.
March 8, 1906

R.L.F.

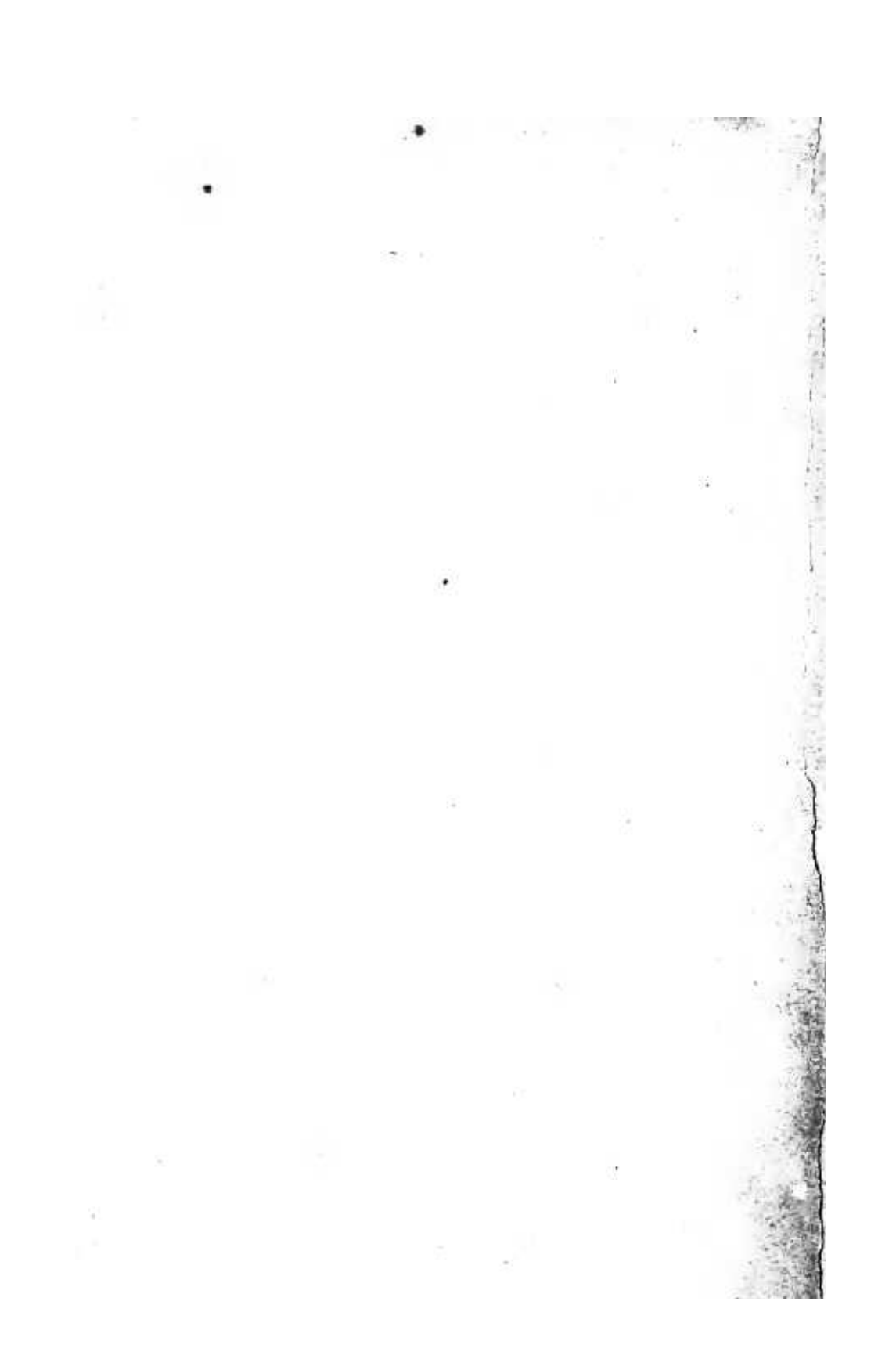


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