"SYNOPSIS"

Hall's Cotton Maturing and Reclaiming Process

Means a Complete Revolution in the Cotton Industry of the World

ARTIFICIAL COTTON MATURING
PREVENTING IMMATURE, FROST-BITTEN AND UNOPENED BOLLS

Stops Waste and Practically Eliminates the Boll-Weevil

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by
John Bishop Hall
The Following Are the Vital Results to Be Obtained By Using the Hall Process:

"The Commercial Museum, 
34th Street, below Spruce Street, 
Philadelphia, February 27, 1912.

Mr. John B. Hall, 
Hotel Walton.

My dear Mr. Hall:

After a thorough investigation into your methods I am convinced that by it you can produce, from the cotton now going to waste, from $75,000,000 to $100,000,000 yearly of a grade of cotton approaching "Middling" and at the same time practically exterminate the boll-weevil.

I have made a special study of just these cotton conditions for a long term of years, and therefore know you are stating facts.

Very truly yours, 
(Signed) Fred D. Maisch."

1. There would be no more immature or frost-bitten bolls such as are now going to waste. A great saving of the cotton now blown off by the wind after maturing would also be made.

2. This method would obviate the loss of cotton irrecoverable owing to scarcity of labor. One workman would be able to do the work of many, the "picking" of the whole bolls from the plants would be infinitely quicker than picking out the matured cotton from the bolls on the stalk.

3. Referring to a mechanical cotton-picker, C. W. Burkett in "Cotton" (page 51) says:

"Suppose it reduces the cost of picking by just half? Picking now costs $100,000,000 a year—
think of saving just $50,000,000 annually to the South! Or to put it differently, 'To pick a crop of 11,000,000 bales, at an average of 150 pounds of seed cotton a day per picker, means that for a picking season of three months, consisting of twenty working days each, somewhat over 1,830,000 people must be kept at work.'

So without investing any money in a cotton picking machine, the planter would obtain reliable results with no skipping of cotton, as is the case with any mechanical contrivance. You can estimate just how much quicker a picker could snip off these bolls like roses instead of having to hunt for the mature cotton and "draw his hand back and forth and put each separate handful into his picking sack." So, on a basis of a man picking twice as much cotton a day by this method, it would not only mean a saving of $50,000,000 a year to the South, but it would release 915,000 people to other industries for a fourth of each year. This would mean to cotton planters everywhere twice as much work and return from the laborer without any additional cost.

4. By this method a greater number of cotton plants could be planted to a row, and more rows to the acre, as the amount of sun required by this process would be much less than is now the case to mature the bolls; the space, therefore, between the plants would be less and the plants placed closer together. The bolls thus grown practically in the shade would grow larger before reaching maturity, the staple longer and the seed heavier. This new seed will go far toward producing other and better varieties.

5. On pages 44 and 45 of C. W. Burkett's book "Cotton" he says:

"Just take the bald statement of Dr. H. J. Webber: 'The average yield of cotton in the
United States is only about 190 pounds of lint per acre, while on many large tracts carefully cultivated a yield of 500 to 800 pounds per acre is frequently obtained.'"

Mr. Burkett further says on page 44, that the above paragraph "is material for a book of sermons."

"Seed Selection May Increase Yield 30 to 50 Per Cent." "The seed for the cotton crop are probably selected with less care than are seed for any other farm crop that men grow." "The cotton farmer will pay high prices for improved seeds for other products, but when it comes to seed for his cotton crops he is strangely careless. The average farmer gets his seed haphazard from the general supply at the gin—good, bad, indifferent, * * * * varieties all mixed." "We know a farmer who by a few years' seed selection has increased the yield of cotton thus improved from 400 to 600 pounds, while seed selected in the old way, grown on similar land and under similar conditions still makes its bare 400 pounds per acre. Fifty per cent. increase from four years' selection of seed!" (C. W. Burkett in "Cotton," pages 44 and 45.)

With the planting of the improved seed (which would undoubtedly follow with the improved cotton matured by our process) this increase in the yield of cotton per acre would be automatic in its actions, and make the selection of seed, therefore, more and more "careless proof." It is impossible to estimate how much more money this would mean to the planter in the future, without any additional effort or expense on his part.

6. Cotton matured by this process would undoubtedly be far superior to the same grade of cotton naturally matured because cotton as matured now on the field while waiting to be picked, is subjected to the dews or chill of the night followed by the heat of the sun next day or
possibly some days of rain or climatic conditions of some kind (together with the dirt and dust blown on the cotton), all certainly deteriorating and weakening it from the standard it was when the boll first burst. In our quick maturing process under cover, none of these weather conditions exists. The gloss on this artificially matured cotton would be of a brilliancy and whiteness, free from all weather stains, far superior to that possible on any cotton naturally matured and exposed to deteriorating weather conditions. The fibre also would certainly be much stronger for the same reason.

7. Every planter will unquestionably use this new process for gathering and maturing cotton, because it is not only cheaper and saves all cotton waste, but the product matured will be much superior than is now produced. If he continued under his present methods he would not only have his present loss and expense, but he would obtain a far lower price for his inferior and stained cotton than his neighbor (producing this new product) would receive. This makes the present methods economically impossible.

8. All bolls within three weeks or a month of maturity can be picked from the stalks at any time when the crop is threatened with danger, either from the elements or from any pest whatever, thus giving insurance against weather and pests. By picking the bolls three weeks or a month before maturity, the strength of the plant would be increased and the remaining bolls would grow larger from the increased substance they would obtain from the plant.

9. The top-crop (a great quantity of which now goes to waste due to maturing late and an early fall and early frost checking not only the maturing of the bolls but killing them) would be completely saved by this process, and
there would be, of course, no more "frost-bitten or immature bolls."

10. The boll-weevil, which is rapidly extending over the entire cotton district of the South, and has already, since its appearance, estimated to have caused a loss of $125,000,000, represented by 2,550,000 bales of cotton, as stated by the Agricultural Department at Washington, D. C., October 30, 1912, would be practically exterminated, as per extract from letter of Secretary Wilson of the National Department of Agriculture, of March 12, 1912:

"OUR EXPERTS ARE STRONGLY OF THE OPINION THAT INJURIES FROM THE BOLL-WEEVIL WOULD BE GREATLY DIMINISHED OR OVBiated ALTOGETHER IF ALL THE COTTON STALKS AND UNRIPE BOLLS WERE REMOVED EARLY IN THE FALL."

This is precisely what would be done, as the stalks and pods can be made full use of for very valuable by-products (as valuable as the cotton itself) instead of being reploughed into the ground, forming nourishment for insects.

11. By our process this company has matured beautiful white cotton from immature bolls that were punctured by the boll-weevil—some bolls in more than one square and one boll punctured in all four squares—and yet this cotton was produced where the poison had not yet spread. This same grade of cotton was also produced from two squares of an immature boll where two of the remaining squares had rotted. These results on the elimination of the boll-weevil and economical saving of cotton are far reaching.
12. Statistics have been given us showing that the cotton production of this country has increased so greatly within the last twenty years West of the Mississippi River that the Western States now produce nearly thirty per cent. of the entire cotton crop of the United States. This is due to their long summer climate, freedom from frost, boll-weevils, etc., and other serious disadvantages under which the Southern cotton section now labors. If these conditions continue, it would seem probable that the production of cotton would increase more and more in the Western sections of the country, and the South would eventually lose the present supremacy it now possesses in cotton growing. This being the fact, our process of maturing cotton, releasing the Southern cotton planter from the foregoing terrible disadvantages, insuring him practically against these handicaps and placing his section once more where the soil and nature intended it, would be of incalculable value to him.

13. The time consumed in maturing cotton by this process is very short, ranging from two to three hours. We estimate that one man can mature from six to ten bales a day according to the size of the machine. The picking from the opened boll would be more quickly done as there is a method by which the picking would be done by machinery in the ginnery immediately after the cotton had been matured, infinitely quicker and cheaper, of course, than is now done by hand in the field.

14. The demand for cotton is constantly increasing and other rival products are decreasing in consumption, the "wool production alone having decreased from 2,750,000 bales in 1895 to 1,750,000 in 1905." (C. W. Burkett's book "Cotton," page 5.) "The day is not far distant when the United States will consume the bulk of her own cotton." (Page 50, British Cotton Growing As-
sociation Pamphlet No. 53, January, 1913.) With this new and improved product this demand would certainly still further increase, and as capital would naturally only plant the best grades of cotton in the new fields that would be taken up (as its success would be assured from the start), it would mean more and more a cotton of a higher standard. Indeed as Mr. Burkett in “Cotton” (page 69) says, of the seed alone:

“So rapidly are we finding new uses for them—all of which will be considered at greater length in other chapters of this book—that Mr. Edward Atkinson was probably not far wrong when he declared that it would be worth while for the South to grow great crops of cotton, even if the plant made no lint at all but seed only. How varied are the uses of cotton seed meal, oil, hulls and linters.”

15. By the adoption of this maturing process there would be a tremendous increase in the production of seed.

16. The tests from the seed by this process not only show more oil than the same grade of seed naturally matured, but it also takes out all the water. The seed can be stored and prevented from sweating, which is a most desirable quality. The seed naturally would sell for more and be more valuable for these reasons.

17. Seed tests prove that the germination is not only not interfered with, but is hastened by picking the seed before maturity. The seed that has ripened on the stalk this year failed to germinate while our artificially matured seed of the same variety, which was picked two weeks before maturity, showed the plant two inches above the ground. This practice will, undoubtedly, provide a more rapidly maturing variety.
18. A crop of 16,000,000 bales of cotton means 4,000,000 tons, and as the pods weigh in proportion to the crop about one-quarter, that would be 1,000,000 tons of pods available for good fuel at the ginnery, which, of course, means a great saving of fuel cost.

19. The planters, whose ginneries have this maturing machine, have the tremendous advantage (over rival cotton sections who have not this process) of being able at any time in their judgment as being the best time to pick unopened bolls from stalks on the field and send to their ginneries to be matured, and so take advantage of the most favorable market conditions by getting their cotton in the market a week or more ahead of competitors, who, without this machine, would have to wait the length of time necessary for their cotton to mature on the field, thus being put practically out of the market until it has been supplied by these more favored planters. The sections, therefore, without this maturing machine would be at as great a financial disadvantage as if they had no telegraph, telephone or railroad facilities to quickly place their cotton in the market at the most favorable time.

This would, of course, also mean that the lands of all planters having this maturing process at their service would at once increase greatly in value for the above economic reasons.

20. With these great economical results assured, it follows that this machine and process undoubtedly occupies, in the gathering and maturing of cotton, a greater place even than the "Whitney Cotton Gin" did in the ginning of cotton.

21. The above facts have not only been gone over and endorsed by American and foreign cotton authorities, but many of them indeed have been suggested to us by these authorities.