

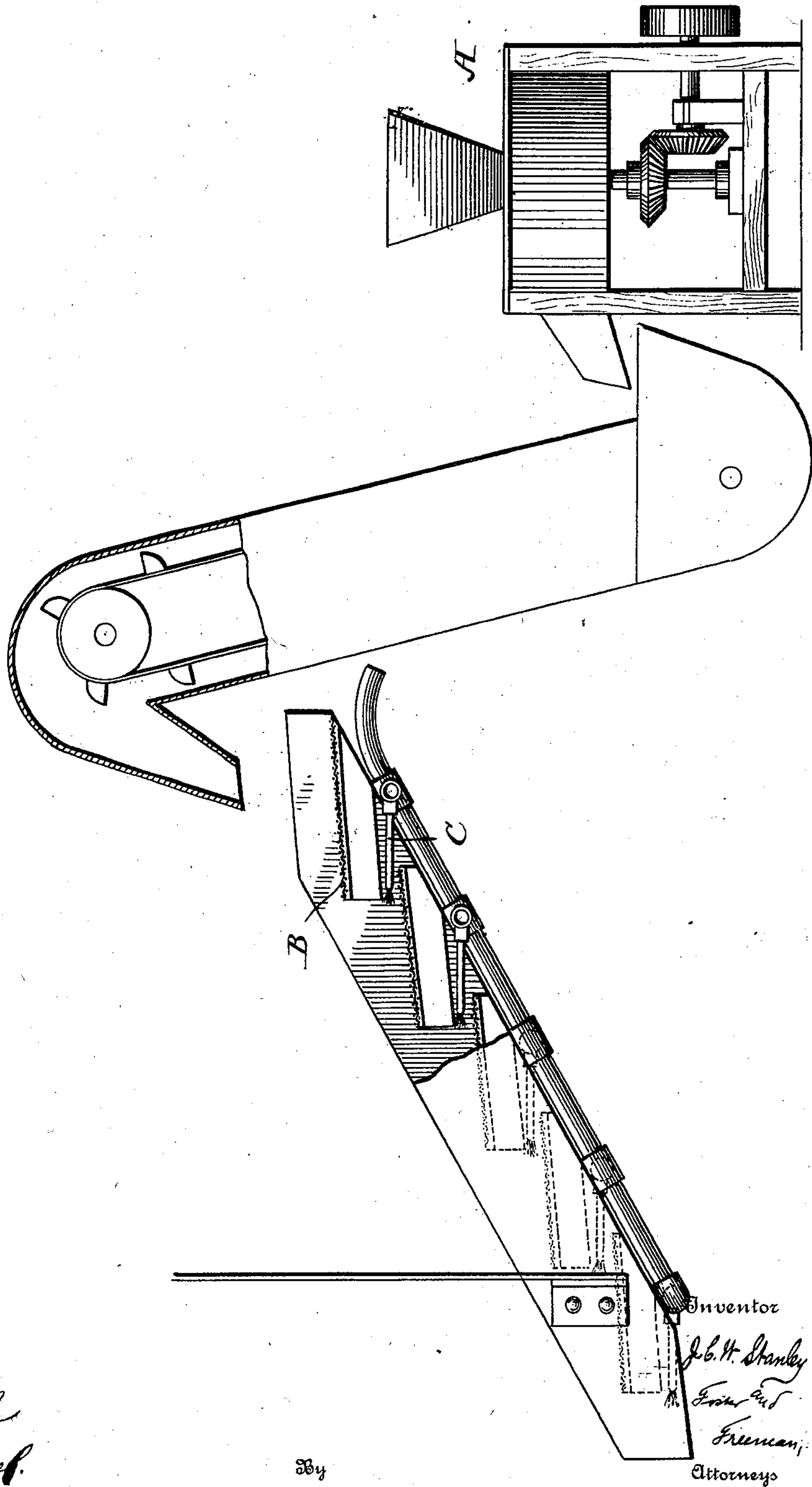
No. 702,681.

Patented June 17, 1902.

J. C. W. STANLEY.
TREATMENT OF COTTON SEED HULLS.

(Application filed Sept. 26, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN CHARLES WILLIAM STANLEY, OF NEW YORK, N. Y.

TREATMENT OF COTTON-SEED HULLS.

SPECIFICATION forming part of Letters Patent No. 702,681, dated June 17, 1902.

Application filed September 26, 1901. Serial No. 76,695. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN CHARLES WILLIAM STANLEY, a subject of the King of England, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in the Treatment of Cotton-Seed Hulls, of which the following is a specification.

This invention relates to the treatment of cotton-seed hulls from which the oil-bearing kernel has been separated; and the object of the invention is to convert such hulls into coarse granular meal, carbonized and free from lint, thereby producing a food for cattle which is entirely free from the objectionable qualities of the hull-meal heretofore used for this purpose and possesses qualities heretofore absent in such food.

Cotton-seed after it has passed through a delinting-machine still has considerable lint or fiber on it, and in the extraction of oil from such seed the latter is first broken up and the oil-bearing kernel separated from the hull and the fiber adhering to the latter. The hull is very tough and is ground into meal only with great difficulty, and it is well known that the presence of lint or fiber in hull-meal or kernel-meal renders such meals objectionable for use as food for cattle. Heretofore it has been proposed to grind the hulls and fiber into a very fine meal and to separate the fiber from the hull-meal by sifting, the fiber having a tendency to ball together during the sifting. While good results are attained in this manner, the operation is expensive and slow, for in order to get the best results it is necessary to grind and regrind the hull and fiber several times and reduce it to a meal almost as fine as flour. Very fine meal is not as desirable as coarse meal for food for cattle; but hitherto, so far as I am aware, coarse hull-meal absolutely free from cotton-lint has not been produced from the American cotton-seed.

In the accompanying drawing I have illustrated diagrammatically a preferred form of apparatus for carrying out my process of obtaining from cotton-seed hulls coarse meal carbonized and free from lint or fiber.

The broken hulls, with their adhering fiber, after being separated from the oil-bearing

kernel of the cotton-seed will be fed to a grinding-mill A, which will reduce them to coarse meal. From the mill A the ground hulls will be delivered to the first of a series of reciprocating screens B, and during its passage over this screen some of the hull-meal will be sifted through; but most of the hull-meal will be matted with the fiber and will tail off with the fiber to the next screen B. As the matted mass passes from one screen to the next below it, it will be subjected to the action of flame from a series of gas-jets C, which flame will by singeing destroy some of the lint and thereby release more of the hull-meal from the mass, which freed meal will be sifted through the second screen. From the second screen the matted fiber and meal will pass to the third, and so on, being subjected to the action of flame each time it passes from one screen to another until all the lint has been destroyed and the meal been sifted through the screens. The flame will be such that it will not burn or otherwise injuriously affect the hull-meal; but the latter will be carbonized by the action of the flame, which is a decided advantage to the meal when used as a cattle-food.

Having described the invention, I claim—

1. The process of obtaining coarse meal free from fiber from cotton-seed hulls, which consists in reducing said hulls to a matted mass of fiber and coarse meal, and subjecting said mass to the action of singeing and sifting, substantially as set forth.

2. The process of obtaining coarse meal free from fiber from cotton-seed hulls, which consists in reducing said hulls to a matted mass of fiber and coarse meal, and subjecting said mass to a series of singeing and sifting actions, the singeing alternating with the sifting, substantially as set forth.

3. As an improved product from cotton-seed, coarse hull-meal carbonized and free from cotton fiber.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN CHARLES WILLIAM STANLEY.

Witnesses:

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