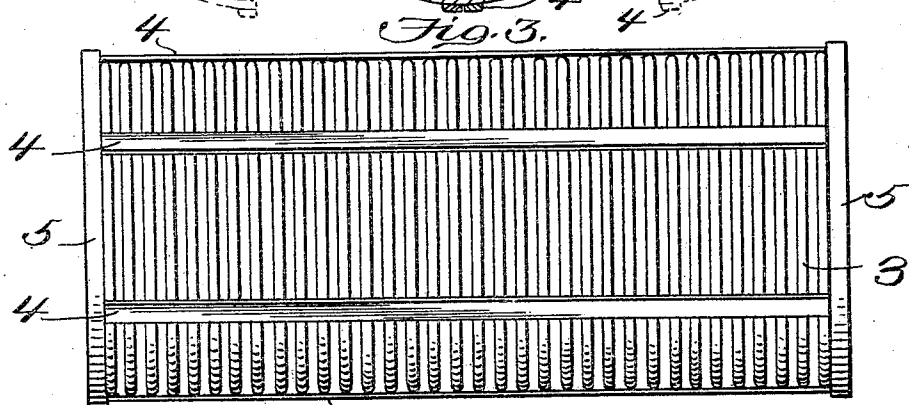
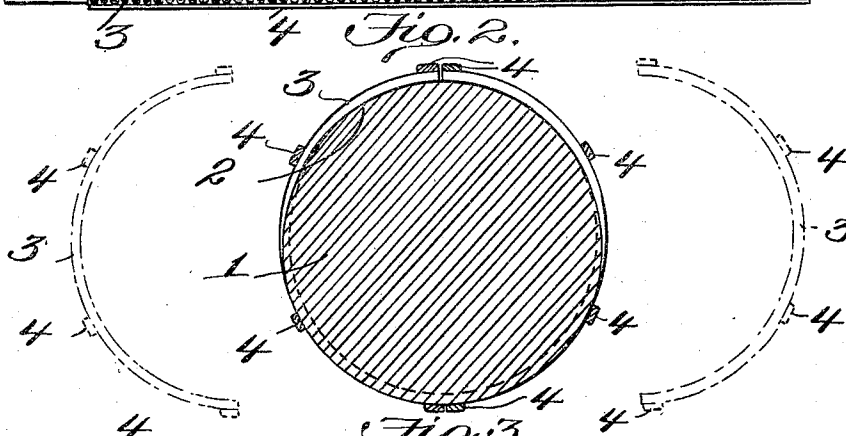
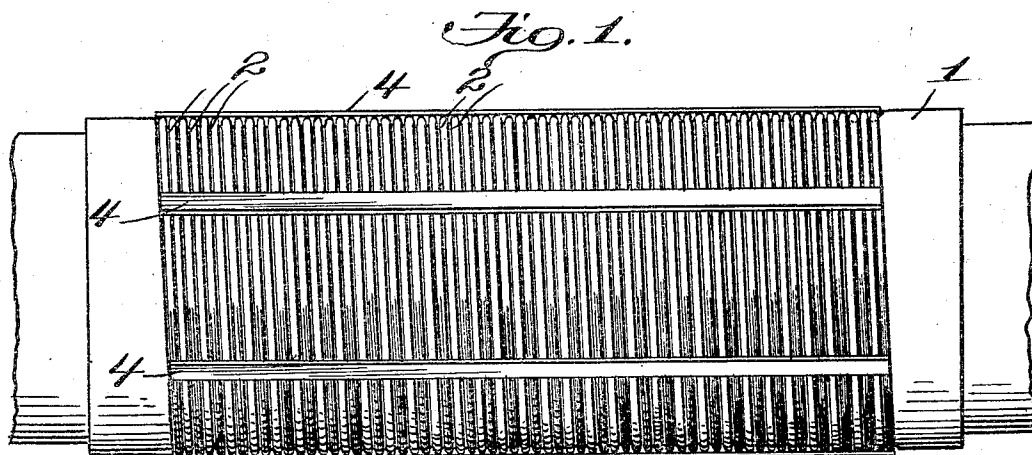


F. PRINZ.  
METHOD OF MAKING GRADING REELS.  
APPLICATION FILED FEB. 18, 1908.

937,861.

Patented Oct. 26, 1909.



Witnesses:

*H. J. O'Sullivan*  
G. J. O'Sullivan.

Inventor

*F. Prinz*  
by *H. J. O'Sullivan*  
Att'y.

# UNITED STATES PATENT OFFICE.

FAUSTIN PRINZ, OF MILWAUKEE, WISCONSIN.

METHOD OF MAKING GRADING-REELS.

937,861.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed February 18, 1908. Serial No. 416,478.

*To all whom it may concern:*

Be it known that I, FAUSTIN PRINZ, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Methods of Making Grading-Reels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a method of making reels for grading barley, oats and other grains or cereals.

It has for its purpose to insure making the spaces between the coils regular whether the spaces be uniform in width from end to end to produce a uniform grading material, or be graduated from one end toward the other so as to produce different grades, the grade or grades however being uniform throughout the portion assigned for any particular grade; also to absolutely maintain between the coils the spacing determined upon so that there will be no variations therefrom after the reel is made; also to secure the coils together so that there will be no ribs or obstructing parts on the inner surface of the reel by the means which secure the coils at their predetermined distances apart.

To the accomplishment of the foregoing and such other objects as may be made to appear the invention consists in first coiling the wire from which the reel is made around a mandrel having spiral grooves or threads receiving the wire and determining the spaces to be formed between the coils, and while on the mandrel securing strips or ribs to the outside of the coils, lengthwise of the reel, so that the spacing given to the coils will be fixed and permanent and not liable to variations after the reel is removed from the mandrel, and so that there will be no projections on the inside surface of the reel to interfere with the proper grading of the material.

It consists secondly, in dividing the spiral reel in two parts or halves longitudinally and then bringing the parts together so that the divided coils of one section will register with the divided coils of the other section in such manner that there will be formed a

reel having substantially straight convolutions as distinguished from spiral convolutions.

Figure 1 of the accompanying drawing is a side view of the mandrel with the wire coiled spirally thereon and showing the holding strips or ribs applied to the coils; Fig. 2 is a cross section through Fig. 1, the dotted lines showing separated segments of the reel; Fig. 3 is a side view of a reel made according to the invention.

In the drawing, the numeral 1 designates a suitable mandrel having formed in its periphery spiral threads or grooves 2 either of a uniform pitch or varying pitch as it may be desired to form a reel with uniform spacing between the coils for a single grade of material, or a varying space for effecting different gradings by the reel, the illustration showing a uniform pitch to the spiral or threads.

The numeral 3 designates wire of suitable dimensions wound around the mandrel, in the threads, by any suitable means so as to form a spiral reel around the mandrel. When the winding has been completed and while the reel is still on the mandrel, strips or ribs 4 are placed on the coils, lengthwise of the reel, and secured thereto by soldering or brazing so that the spacing given to the coils will be fixed and made permanent. This also will leave the interior of the reel free from ribs or projections on its inner surface when completed so that no obstruction will be offered to the material being graded, freely sliding on the inner surface of the reel. After the binding strips have been applied, the reel is severed by a fine saw, or other means, longitudinally so as to make it in separate parts or halves. The two parts of the reel are then brought together by shifting one section longitudinally of the other, or otherwise, so that the ends of the severed coils will be brought into register in a manner to convert the spiral convolutions into substantially straight convolutions as distinguished from spirals, and the sections will be secured together in any suitable manner, for instance, by applying encircling bands 5 around the reel at the ends thereof.

By the method described I obtain accuracy in the spacing of the coils; their retention in position after removal from the mandrel and without any obstructing projections on the inner or grading surface of the

reel to interfere with proper grading or to be worn by abrasion; and a reel in which the convolutions of the coils are straight as distinguished from spiral convolutions, and by which I obtain a better grading of the material and the spaces between the coils are more readily kept clear.

Instead of a solid mandrel a collapsible mandrel might be used and in the latter event the reel could be severed after removal from the mandrel instead of before removal but after the coils have been secured together by the binding strips or ribs, the method being the same whatever be the form of mandrel.

Having thus described my invention and set forth its merits, what I claim is:—

1. The method of forming grading reels consisting in coiling wire to form a cylindrical body having spiral convolutions with intervening spaces; securing the convolutions together; and then severing the coils longitudinally of the cylindrical body and bringing the severed sections together to form a cylindrical body having substantially straight convolutions, substantially as described.

2. The method of forming grading reels

consisting in coiling wire to form a cylindrical body having spiral convolutions with intervening spaces; applying binding strips to the outside of the body to maintain the spacing between the convolutions; and then severing the coils longitudinally of the body and bringing the severed sections together to form a cylindrical body having substantially straight convolutions, substantially as described.

3. The method of forming grading reels consisting in coiling wire around a mandrel to form a cylindrical body having spiral convolutions with intervening spaces; securing binding strips to the outside of the body to maintain the spacing between the convolutions; then while the coils are around the mandrel severing the coils longitudinally of the body; and then bringing the severed sections together to form a cylindrical body having substantially straight convolutions, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FAUSTIN PRINZ.

Witnesses:

DANIEL T. LEISK,

G. G. FISCHER.