Oct. 20, 1925. 1,558,337

W. J. BRITTON

TESTER

Filed Sept. 12, 1924 3 Sheets-Sheet 1

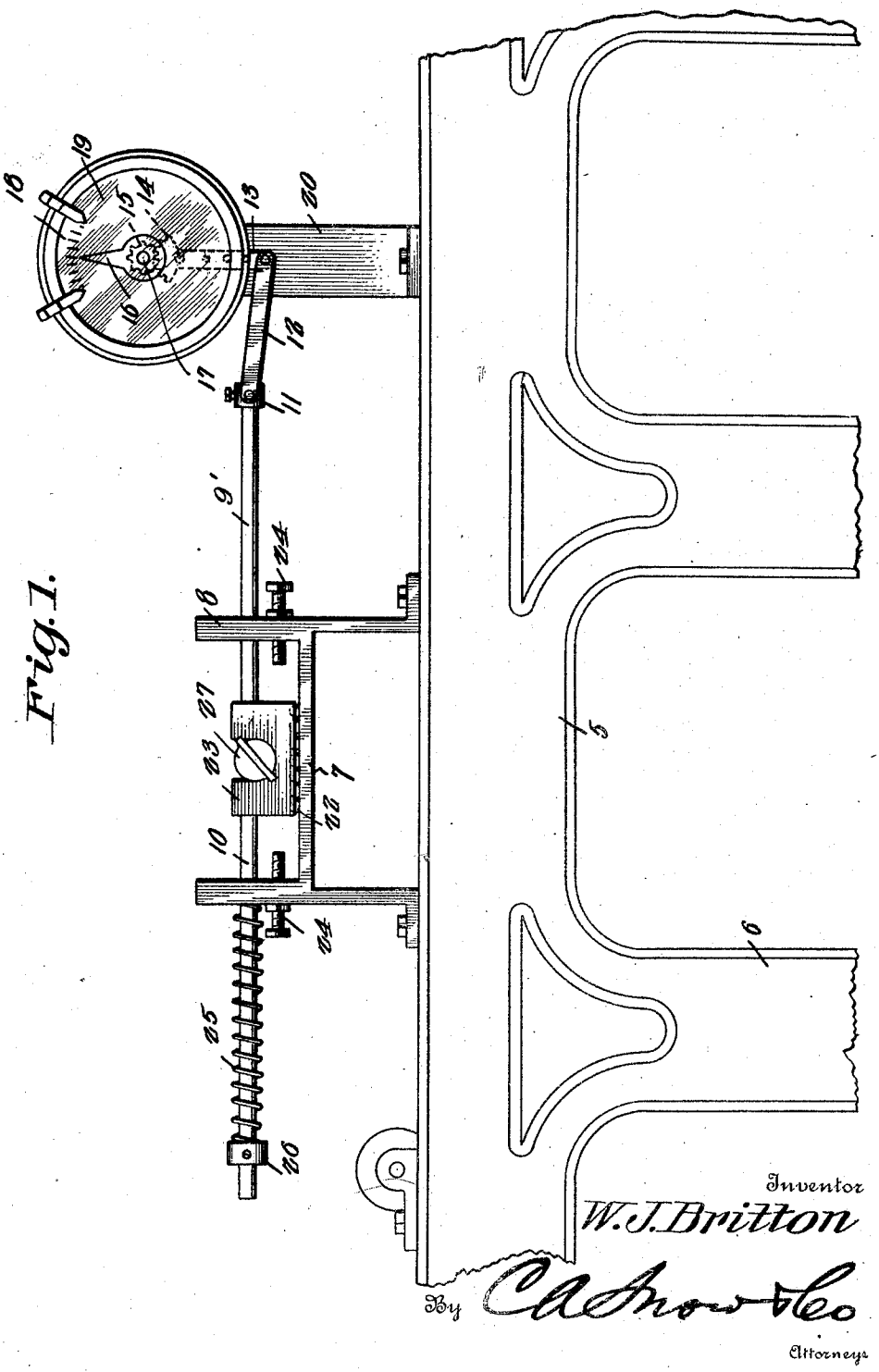


Fig. 1.

Inventor
W. J. Britton
By C. A. Snow & Co
Attorneys

Oct. 20, 1925. 1,558,337

W. J. BRITTON

TESTER

Filed Sept. 12, 1924 3 Sheets-Sheet 2

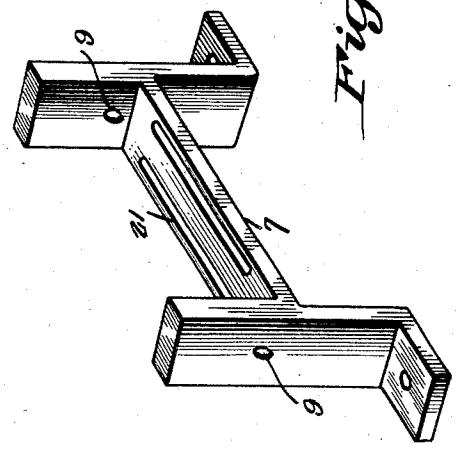


Fig. 3.

Fig. 2.

Inventor

W. J. Britton

By Clarence A. O'Brien & Co

Attorneys

Oct. 20, 1925. 1,558,337

W. J. BRITTON

TESTER

Filed Sept. 12. 1924 3 Sheets-Sheet 3

Fig. 6.

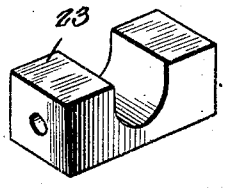


Fig. 4.

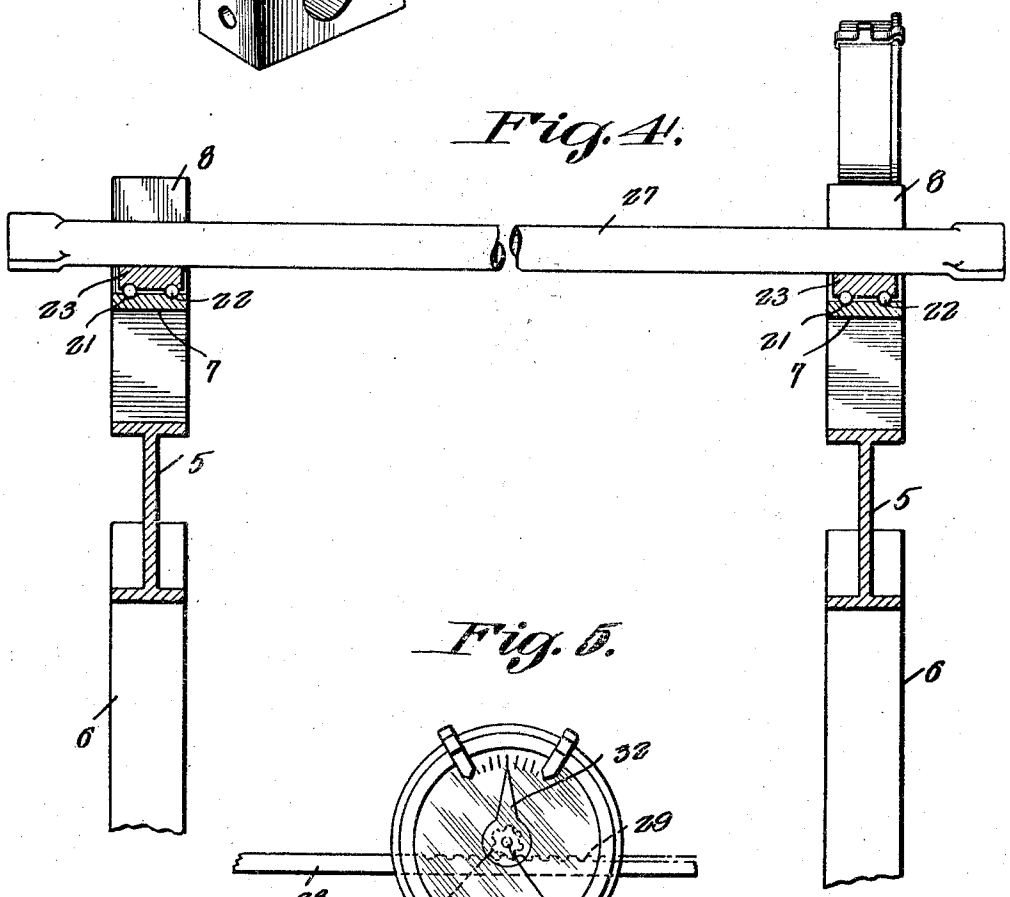
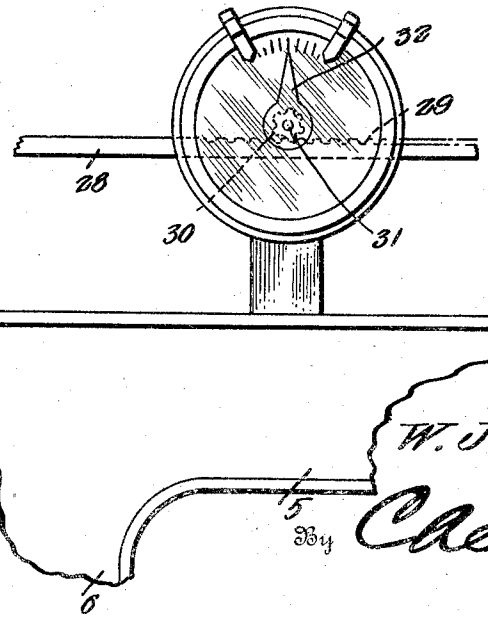


Fig. 5.



Inventor
W. J. Britton
By C. A. Snow & Co.
Attorneys

Patented Oct. 20, 1925. 1,558,337

UNITED STATES PATENT OFFICE.

WALTER J. BRITTON, OF SPARTANBURG, SOUTH CAROLINA.

TESTER.

Application filed September 12, 1924. Serial No. 737,429.

To all whom it may concern:

Be it known that I, WALTER J. BRITTON, a citizen of the United States, residing at Spartanburg, in the county of Spartanburg and State of South Carolina, have invented a new and useful Tester, of which the following is a specification.

The present invention relates to improvements in machines commonly known as slashers and aims to provide novel means whereby the uniformity of the different mixings of starch used in sizing yarn, may be determined mechanically.

Another object of the invention is to provide means in connection with a slasher to indicate irregularities present in the yarn, due to an improper sizing of the yarn on its passage from the slasher.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a fragmental elevational view disclosing a slasher frame supplied with an indicating device constructed in accordance with the invention.

Figure 2 is a plan view thereof.

Figure 3 is a perspective view disclosing one of the supporting brackets for the bearings used in connection with the indicating roll.

Figure 4 is a vertical sectional view taken through the machine.

Figure 5 is an elevational view disclosing a modified form of indicating device.

Figure 6 is a perspective view disclosing one of the bearings.

Referring to the drawings in detail, the reference character 5 indicates one of the side rails of the frame of the slasher which rails are formed with integral leg members 6 by means of which the frame is supported.

Mounted on the rails 5 and disposed at opposite sides of the frame are the bearing brackets, each of which includes a horizontal supporting surface 7 and upwardly extended end portions 8, the end portions 8 being supplied with openings 9 which act as guides for the rods 9′ and 10, the rod 9′ being supplied with an adjustable head 11 to which the links 12 are pivotally connected.

The links 12 are pivotally connected with the arm 13 which is provided with a segmental gear 14 at its upper end, the teeth of which mesh with the gear 15 of the indicating hand 16 which is pivotally supported at 17 to move with respect to the graduations 18 formed on the indicating dial 19 which is supported by the bracket members 20 that are also mounted on the side rail 5.

Formed in the horizontally disposed supporting surface 7 are grooves 21 which accommodate balls 22 that are also mounted in suitable grooves formed in the bearing member 23 mounted between the upwardly extended end portions 8. Adjusting screws 24 pass through the extension 8 and act as abutments for the bearing 23 to restrict movement thereof and limit the throw of the rod 9′ associated therewith.

Mounted on the rod 10 is a coiled spring 25 which has one end thereof engaging the adjustable stop 26, the opposite end thereof engaging the extension 8 adjacent thereto so that when the rod 10 and bearing 23 are moved in one direction, the spring 25 will be tensioned to return the rod and bearing after pressure has been removed.

As clearly illustrated by Figure 6 of the drawings, the bearings are cut away to accommodate the lease rod 27 which is disposed nearest to the cylinder, forming a part of the slasher, so that as the material passes from the cylinder and over the lease rod to split the same, any variation of sizing on the yarn will vary the pressure on the lease rod to the end that the lease rod mounted in the movable bearings, will operate to cause the indicating hand to move and register such movement on the indicating dial.

In the form of the invention as illustrated by Figure 5 of the drawings, the links 12 have been omitted and the rod 28 corresponding to the rod 9′ as illustrated by Figure 1 of the drawings, is provided with a plurality of teeth 29 that are in mesh with the teeth 30 of the gear 31 which controls the movement of the indicating hand 32. It will be obvious that the same movement of the bearings as previously described will operate to move the rod 28 and cause the hand 32 to register.

From the foregoing it will be obvious that an operator may by watching an indicating

hand determine whether or not the sizing is being properly applied, and whether or not the sizing is properly mixed.

While I have shown and described bearing members, it is to be understood that it is only necessary to employ controlling rods in connection with one of the bearing members in order to operate the indicating device.

I claim:—

1. In combination with a lease rod of a slasher, a frame, bearing brackets mounted on the frame, said brackets including horizontal surfaces having grooves formed therein, bearing members having grooves, balls mounted in the grooves, said bearing members having cut out portions to accommodate the ends of a lease rod, an indicating member mounted on the frame, and means connected with one of the bearing members and indicating member for moving the indicating member when the bearing member moves, and said lease rod adapted to be moved by variations in the thickness of the sizing material on the yarn passing over the lease rod.

2. In combination with a lease rod of a slasher, a bearing supporting frame including bracket members having a horizontal surface mounted at each side of the frame, bearing members movable longitudinally of the horizontal surfaces of the bracket members, said bearing members being cut away to accommodate a lease rod, an indicating member, a rod connected with one of the bearing members and having connection with the indicating member to move the indicating member when the bearing member is moved, and said lease rod adapted to be moved by its contact with sizing material carried on the yarn passing thereover.

3. In a machine of the class described, movable bearings, means for normally holding the bearings against movement, a lease rod supported by the bearings, said lease rod and bearings adapted to be moved by the thread separated by the lease rod, and means operated by the bearings for registering the quantity of sizing in the thread.

4. In a machine of the class described, a frame, a lease rod supported by the frame, means for normally holding the lease rod against movement, said lease rod adapted to be moved by the thread passing thereover, and a measuring device operated by the movement of the lease rod.

5. In a machine of the class described, a frame, a lease rod mounted for movement longitudinally of the frame, means for normally holding the lease rod against movement, said lease rod adapted to be moved by the resistance offered by the sizing of the thread being separated, and means for registering the movements of the lease rod.

6. In a machine of the class described, a frame, slidable bearings on the frame, a lease rod mounted in the bearings, means for normally holding the bearings against movement, said lease rod adapted to be moved by the resistance offered by the sizing of the thread passing thereover, and indicating means for indicating the movements of the lease rod.

In testimony that I claim the foregoing as my own, I have herto affixed my signature.

WALTER J. BRITTON.