

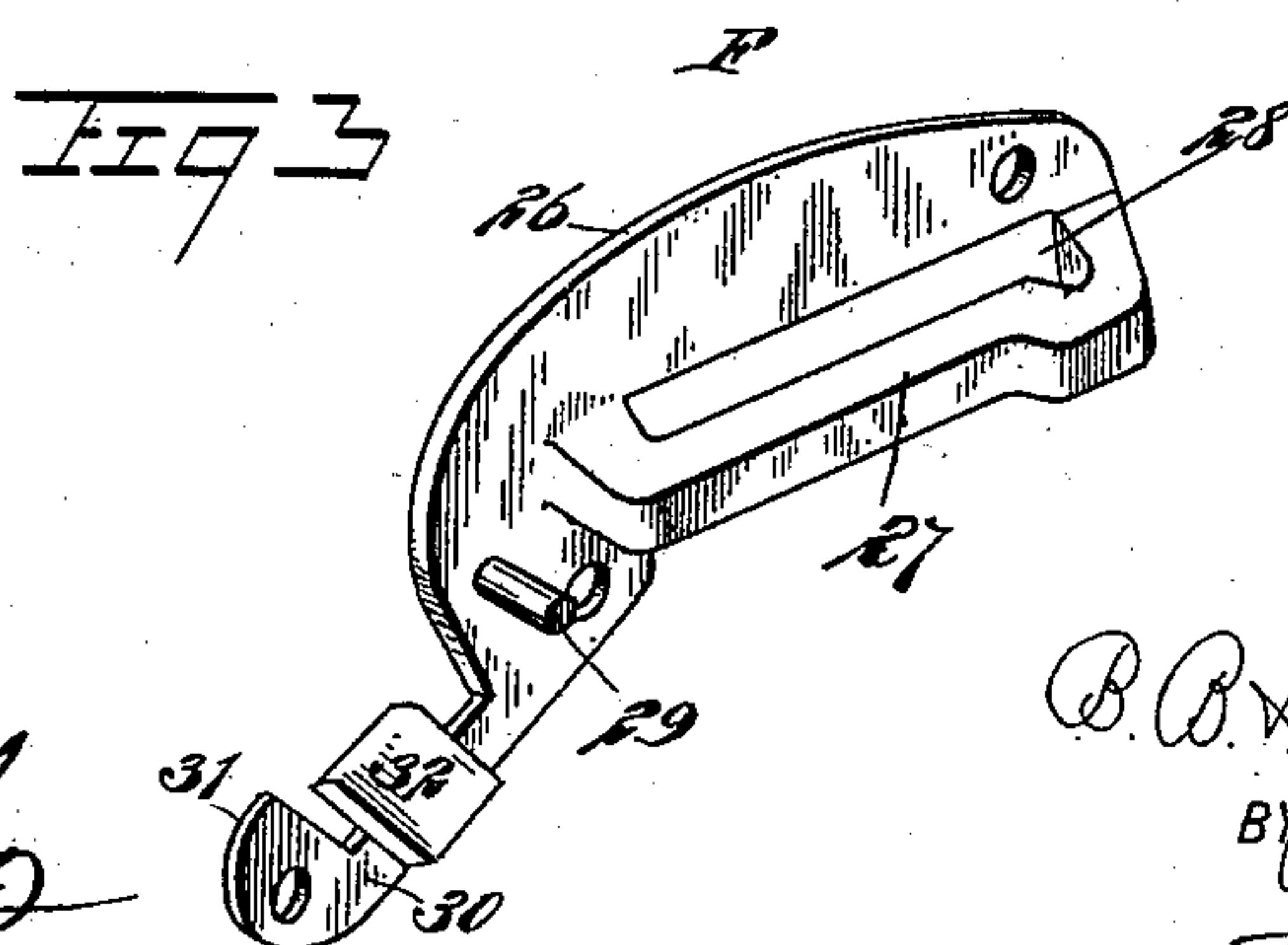
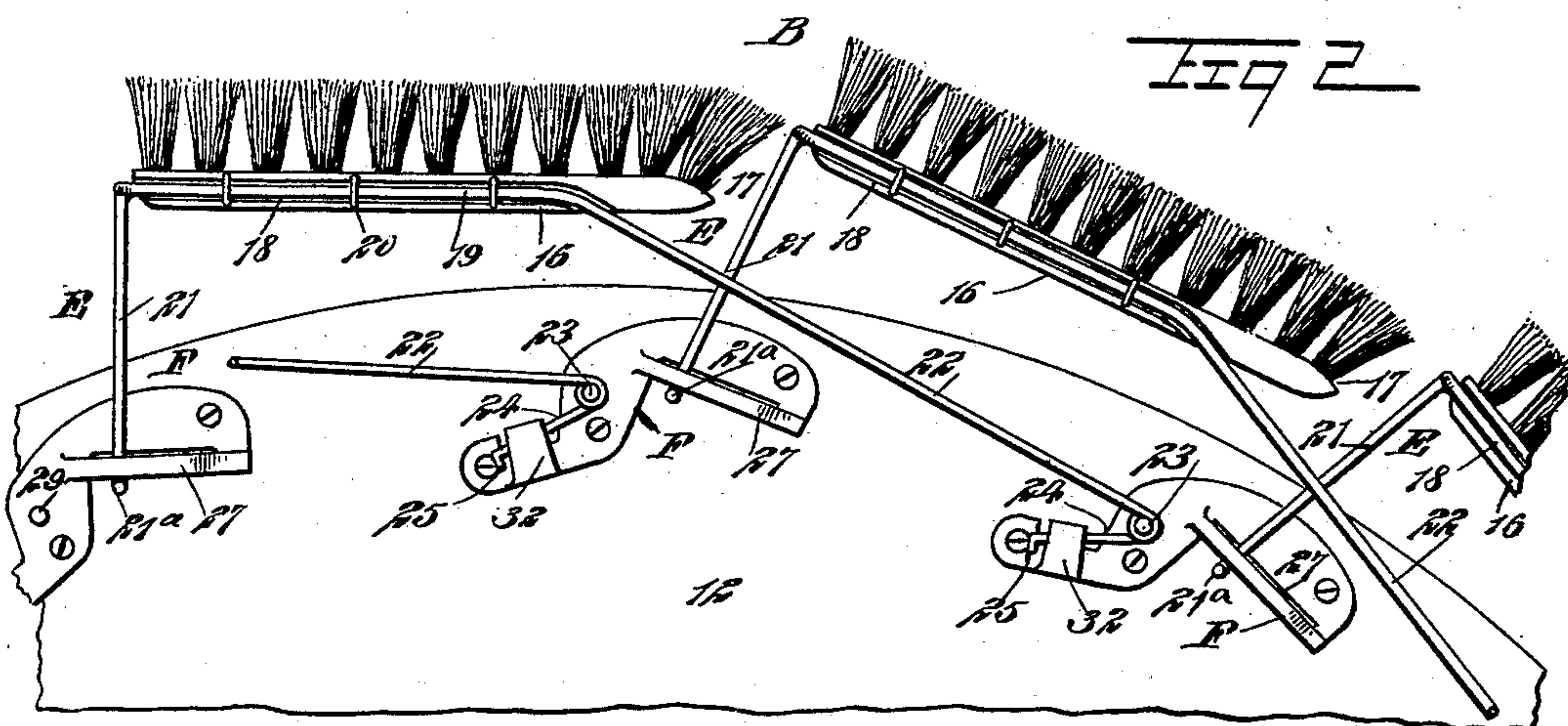
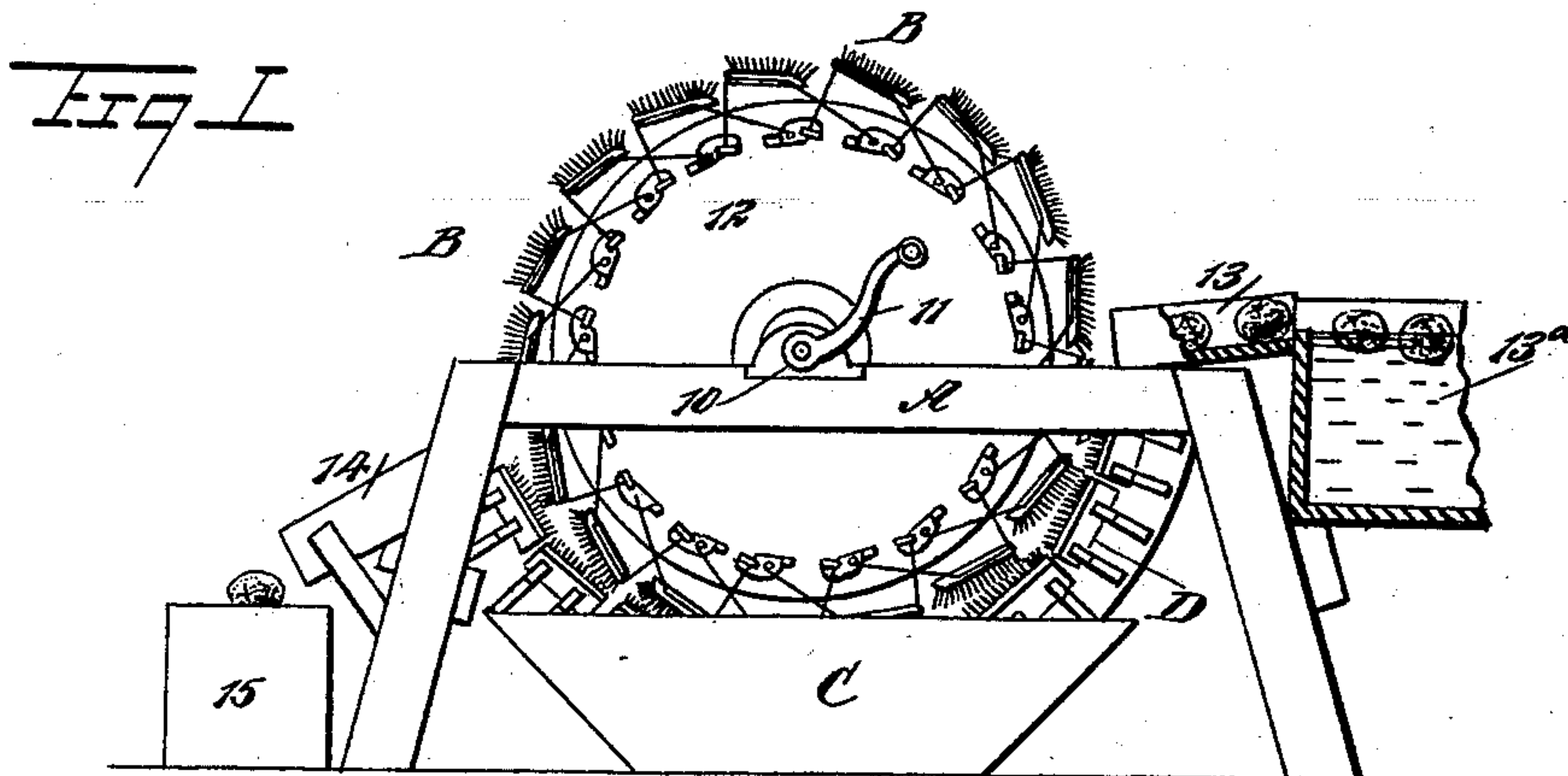
No. 622,937.

Patented Apr. 11, 1899.

B. B. & J. H. WRIGHT.  
MACHINE FOR CLEANING FRUIT.

(Application filed Dec. 3, 1898.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

BENJAMIN B. WRIGHT AND JAMES HARRISON WRIGHT, OF RIVERSIDE,  
CALIFORNIA.

## MACHINE FOR CLEANING FRUIT.

SPECIFICATION forming part of Letters Patent No. 622,937, dated April 11, 1899.

Application filed December 3, 1898. Serial No. 698,165. (No model.)

*To all whom it may concern:*

Be it known that we, BENJAMIN B. WRIGHT and JAMES HARRISON WRIGHT, of Riverside, in the county of Riverside and State of California, have invented a new and Improved Machine for Cleaning Fruit, of which the following is a full, clear, and exact description.

The object of our invention is to improve upon the construction of the machine for cleaning fruit for which Letters Patent were granted to us March 8, 1898, No. 600,394, especially as to the means for effecting a connection between the spring-supports for the brushes and the wheel upon which the brushes are mounted. The principal aim of the improved construction is to provide means for applying the brush-supports to and disconnecting such supports from the wheel, thereby enabling an operator to quickly and accurately substitute perfect brushes for damaged or worn-out brushes, it being possible to effect such substitution while the machine is in action. A further improvement is in the construction of the backs of the brushes, which are so made that the fruit will find ready entrance into the machine, and in so constructing the supports for the brushes that they may be securely and readily applied to the carrying-wheel.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the machine, illustrating the application of the improvement thereto. Fig. 2 is an enlarged side elevation of a segment of the wheel, and likewise an enlarged edge view of the brushes and side elevation of the supports whereby the brushes are attached to the wheel; and Fig. 3 is a detail perspective view of one of the supporting devices adapted to be attached directly to the wheel and to assist in sustaining a brush out of engagement with the periphery of the wheel.

A frame A is provided, which usually consists of horizontal bars and legs supporting

the said bars, as shown in Fig. 1, and upon the horizontal bars of the frame a shaft 10 is journaled, provided with a crank-handle 11 for turning the same, or the shaft may be revolved through other means. A wheel 12 is securely fastened to the shaft 10, and a series of brushes B is spring-supported at the periphery of the wheel, the brushes, however, being out of engagement with the said peripheral surface of the wheel, as is clearly shown in both Figs. 1 and 2. The brushes B, that are carried by the wheel 12, are adapted to pass into a trough C, in which trough a series of segmentally-arranged brushes D is arranged, and the fruit is adapted to pass between the brushes on the wheel and the brushes segmentally arranged in the trough, the latter series of brushes being stationary.

The fruit is delivered between the segmentally-arranged brushes and the brushes on the wheel through the medium of a chute 13. The fruit before being placed in the chute is preferably washed in a tank 13<sup>a</sup>, as illustrated in Fig. 1. The fruit cleaned by contact with the two series of brushes is delivered at the opposite side of the machine into a trough 14, that is arranged to drop the fruit into a box 15 or other receptacle suitably placed to receive said fruit.

The brushes are placed end to end around the periphery of the wheel, and the backs of the brushes face the peripheral surface of said wheel. The forward edge of each brush-back 16 is provided with an upper beveled surface 17, and the lower surface of the front end of the brush may be beveled also, if desired, as shown in Fig. 2, in order that the forward ends of the brushes B shall not offer any material resistance to the fruit that is to be delivered between them and the stationary brushes D. Each brush at each side is likewise provided with a longitudinal channel or groove 18, and in connection with each brush two spring-supports E are supplied, one on each side of the wheel, each spring-support E consisting of a body-section 19, that is fitted in the groove 18 in the brush-body, the body-section of the spring-support being secured to the brush by staples 20 or their equivalents. One end of the body of each spring-support is carried slightly around the rear of the brush to



which it is applied and thence vertically downward, forming a vertical end section 21, which vertical end section terminates at its lower end in a hook 21<sup>a</sup>, which we denominate a  
 5 "check-hook." The other or forward end of the body is inclined downwardly, so as to pass the side of the wheel tangentially, and near the lower end of this inclined section 22 a coil or loop 23 is formed, and an arm 24 is  
 10 carried downwardly from the loop or coil 23 at an angle to the inclined section 22, the arm 24 being made to terminate preferably in a hook 25, as shown best in Fig. 2.

In connection with the spring-supports E of the brushes brackets F are employed, which brackets are constructed right and left, being adapted to be secured to opposite side faces of the wheel and in transverse alinement. Each bracket preferably consists, as shown  
 15 in Fig. 3, of a curved plate 26, having apertures adapted to receive screws or other fastening devices, and each plate 26 is provided with a longitudinal loop-keeper 27, having a recess 28 at its forward end, which recess extends into the end of the front wall of the  
 20 loop-keeper. The plate 26 is further provided near the rear end of its loop-keeper with a stud 29, adapted to receive the loops 23 of the inclined portions 22 of the brush-supports, and at the end of the plate 26 at which the  
 25 stud 29 is located an extension 30 is provided, that terminates in a head 31, and at the outer face of the extension 30 a lug 32 is formed, that extends outward from the extension of the plate and upwardly in direction of the  
 30 periphery of the wheel to which the bracket is secured.

When applying the brushes, the coils 23 of the inclined members of the spring-supports  
 40 are placed around the studs 29, and the arms 24 of the spring-supports are passed rearwardly to an engagement with the under faces of the lugs 32, which will then retain the said coils on the said studs. The vertical section 21 of the spring-supports of the brush are then  
 45 passed downward through the recesses 28 of the brackets second beyond (leaving an intermediate bracket the loop-section of which is to receive the spring-support of the next brush,) which recess admits of the downward pas-  
 50 sage of the check-hook 21<sup>a</sup> of the section 21, and the section 21 is then permitted to take a position in the loop-keeper 27, near its rear end, the check-hook 21<sup>a</sup> engaging with the bottom of the said loop-keeper, as illustrated in Fig. 2. Thus it will be observed that the  
 55 brushes may have free movement to and from the periphery of the wheel, and that the form of the brackets F admits of any brush on the wheel being expeditiously and conveniently disconnected from the wheel and replaced by another.

Having thus described our invention, we claim as new and desire to secure by Letters  
 65 Patent—

1. In a machine for cleaning fruit, the combination with a brush and spring-supports for

the same consisting of body-sections attached to the sides of the brush, a vertical section  
 70 having a hook at its end, and an inclined section having a return-arm, of brackets, and a support for the brackets, each bracket having a keeper for the vertical section of the  
 75 spring-support, a stud for engaging the spring-support at the junction of the inclined section and the return-arm, and a lug for engagement with the return-arm, substantially as set forth.

2. In a machine for cleaning or washing fruit, a wheel, brackets attached to the sides  
 80 of the wheel the said brackets each consisting of a plate provided with a keeper, a post and a retaining-lug, brushes adapted to be supported at the peripheral surface of the  
 85 wheel, and spring-supports for said brushes, the said spring-supports being secured to the brushes and arranged for detachable connection with the said brackets, substantially as described.

3. In a machine for cleaning fruit, the combination with a wheel, and brackets adapted  
 90 to be secured to the sides of the wheel, each of said brackets consisting of a plate provided with a keeper, a stud or post adjacent to the keeper, and a retaining-lug, of brushes, and  
 95 spring-supports for the said brushes, each having a member adapted for engagement with the keeper of a bracket, and a member provided with a loop or coil and an arm for engagement respectively with the stud and  
 100 the lug of another bracket, substantially as set forth.

4. In a machine for cleaning or washing fruit, a bracket adapted as a support for  
 105 brushes, the said bracket consisting of a plate provided with a loop-keeper, a post adjacent to the keeper, and a return-lug adjacent to the post, as described.

5. In a machine for washing or cleaning fruit, the combination, with brackets and sup-  
 110 ports for the said brackets, each bracket comprising a body provided with a loop-keeper, each loop-keeper being provided with an enlarged portion between its ends, a post adjacent to the loop-keeper, and a retaining-lug  
 115 adjacent to the post, of a brush, spring-supports for the brush, each support consisting of a body arranged for attachment to the back of the brush, an end member extending at a right angle from the support, which member  
 120 is adapted to pass through the loop-keeper of a bracket, the vertical member terminating at its lower end in a hook, an inclined section located at the opposite end of the body, said inclined section being provided with a coil  
 125 adapted to receive the stud of an adjustable bracket, the inclined section of each spring-support being provided likewise with an arm extending in direction of the brush, the arm being adapted to engage with the inner face  
 130 of the retaining-lug on the bracket receiving the coil of the inclined arm, for the purpose described.

6. In a machine for cleaning or washing



fruit, the combination with a wheel, and brackets attached to the sides of the wheel and each consisting of a plate provided with a loop-keeper having a recess at its front end, a post  
5 adjacent to the keeper, and a lug adjacent to the post, of brushes, and spring-supports for the same each comprising a body portion arranged for attachment to the brush, a member at one end of the body portion adapted for  
10 connection with the loop-keeper of a bracket, and a member at the other end of the body

portion provided with a loop or coil adapted to receive the stud of a bracket, and also provided with an arm adapted to engage the lug on the bracket receiving the loop or coil, substantially as described. 15

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Witnesses:

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