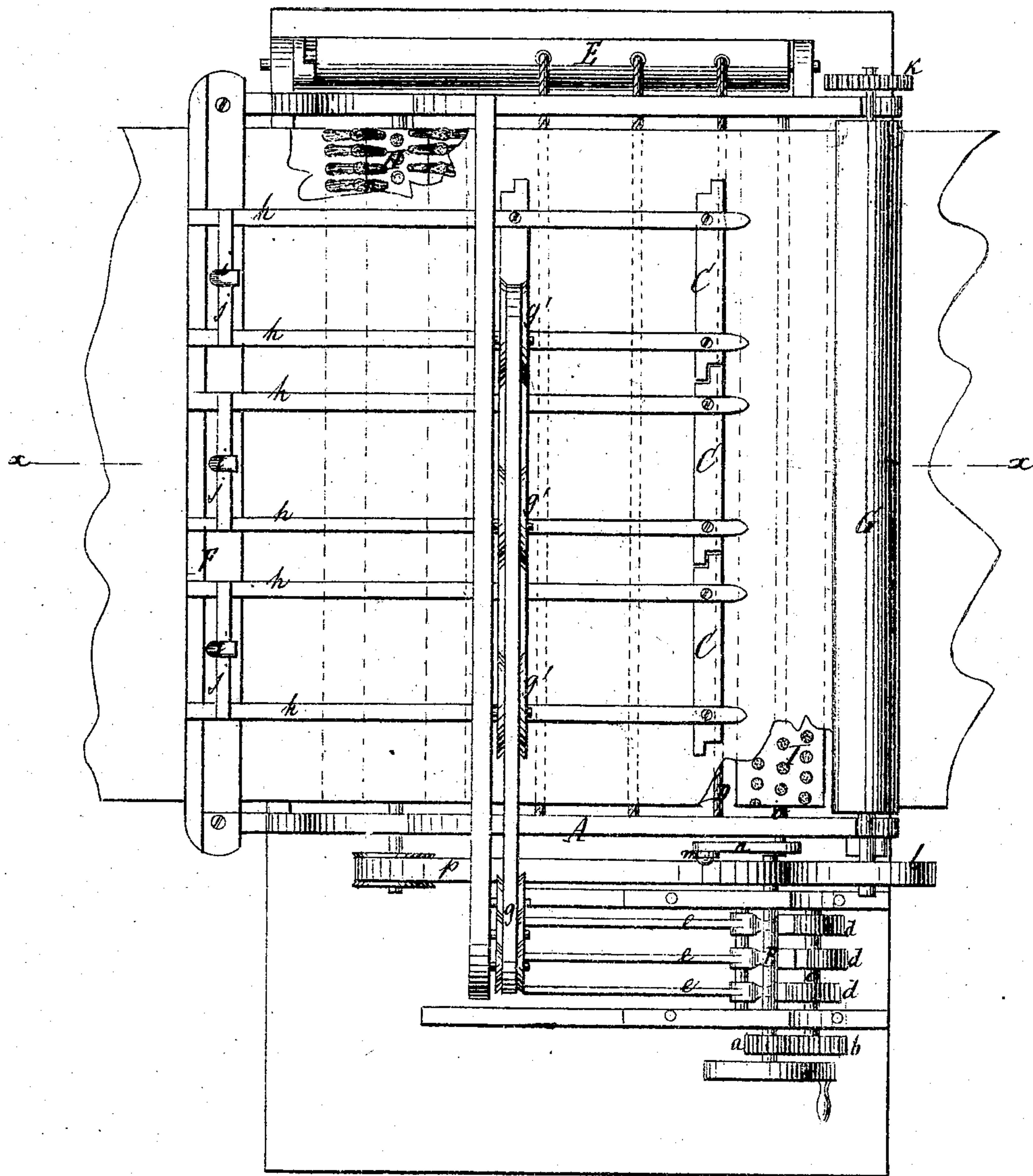


# J. Hothersall & J. Bank's <sup>Imptd</sup> Carpet Beater.

116958

PATENTED JUL 11 1871

Fig: 1.



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# J. Hothersall & J. Bank's *Imp'd* Carpet Beater.

Fig: 3.

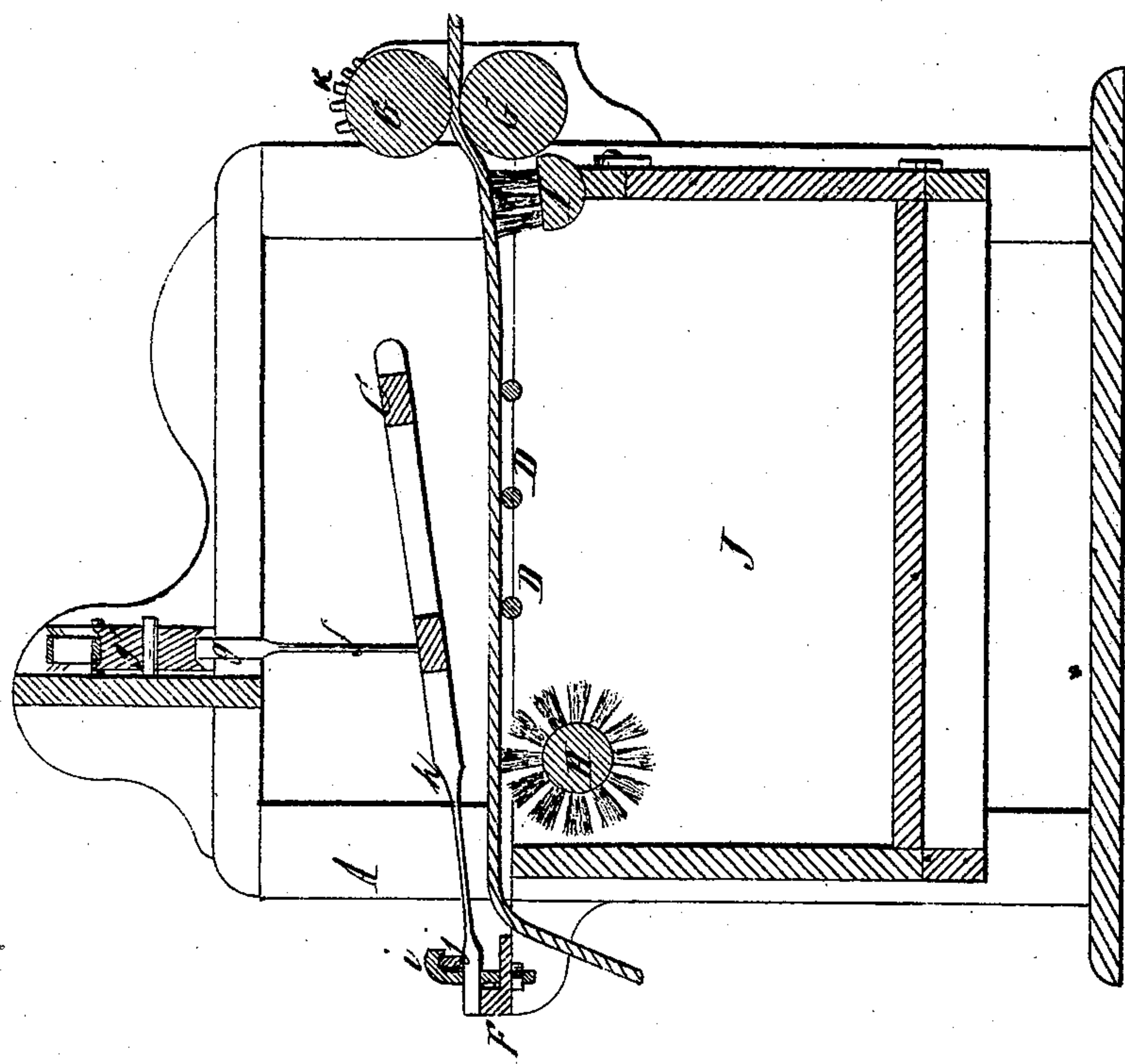
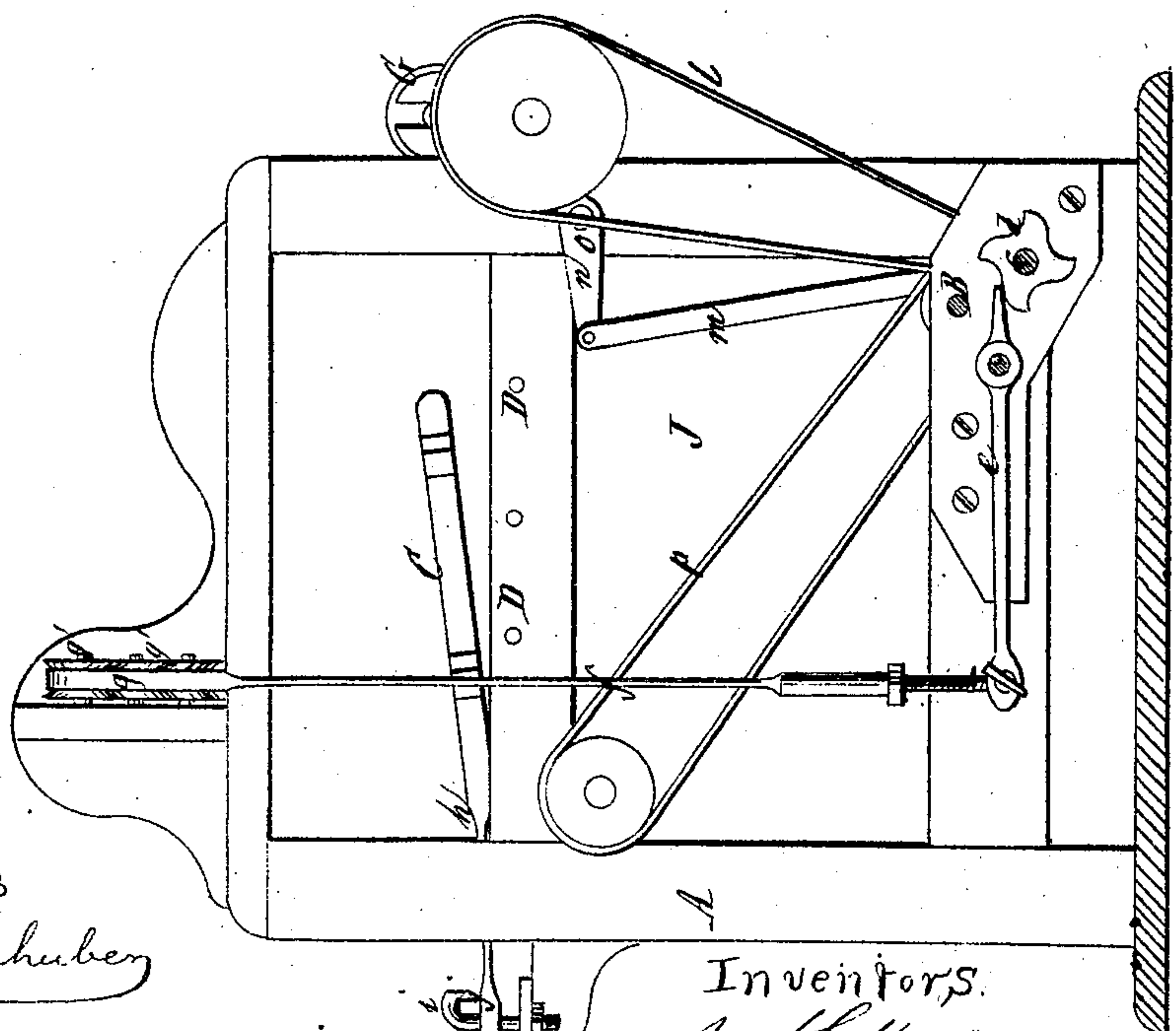


Fig: 2.



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## IMPROVEMENT IN CARPET-BEATERS.

Specification forming part of Letters Patent No. 116,958, dated July 11, 1871.

*To all whom it may concern:*

Be it known that we, JAMES HOTHERSALL and JOSEPH BANKS, of the city, county, and State of New York, have invented a new and Improved Carpet-Beater; and we do hereby declare the following to be a full, clear, and exact description, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a plan or top view of this invention. Fig. 2 is a side view of the same. Fig. 3 is a vertical section of the same taken in the plane *x x*, Fig. 1.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of a series of beaters secured to the outer ends of elastic arms and actuated by revolving trip-wheels, said beaters being situated over a flexible platform composed of cords or ropes, over which the carpet is drawn by suitable feed-rollers, and under which are situated two brushes, one in front and the other behind the beaters, in such a manner that, by the revolution of one shaft, the carpet is slowly fed along under the beaters, while the beaters receive a rapid vibrating motion, acting on the carpet with good effect, and at the same time the carpet is exposed to the action of the brushes, one of which has a revolving and the other a vibrating motion, and thereby a carpet can be cleaned in a comparatively short time and without danger of sustaining any injury.

In the drawing, A designates a frame which is made of wood or any other suitable material. On one end of this frame is situated the driving-shaft B, which connects by gear-wheels *a b* with a secondary shaft, *c*, on which is mounted a series of trip-wheels, *d*. These trip-wheels act on levers *e*, which connect by rods *f* and belts *g* with the beaters C. The belts *g* run over pulleys *g'* in the top part of the frame A, and the beaters are connected to the outer ends of arms *h*, made of wood or other elastic material and retained at their back ends by hooks *i* and cross-bars *j*. When the beaters are raised, therefore, the arms *h* are bent, and whenever one of the trip-wheels releases its lever the corresponding beater is carried down by the elasticity of its arms, and it

inflicts a smart blow to the carpet situated beneath it. The carpet, while being acted on by the beaters C, is supported by a flexible platform, D, formed of cords or ropes which are secured in one side of the frame A and strained by the action of a windlass, E, secured to the opposite side of said frame, as shown in Fig. 1 of the drawing. A ratchet-wheel and pawl serve to retain the windlass in position when the ropes of the platform D have acquired the required tension. The back ends of the beater-arms are supported by a beam, F, resting on arms extending from the frame A, so that the carpet can be drawn through beneath said beam and between the flexible platform D and beaters C. (See Fig. 1.) The requisite feed-motion is imparted to the carpet by rollers G, with a soft or elastic surface, so that they are able to take a firm hold of the carpet without injuring the same. Said feed-rollers are geared together by cog-wheels *k*, and they receive the requisite motion by means of a belt, *l*, extending from a pulley on the end of the trip-wheel shaft over another pulley mounted on the end of the shaft of one of the feed-rollers. Below the flexible platform D are two brushes, H I, one in front and the other behind the beaters C. The front brush I receives an oscillating motion by an eccentric mounted on the inner end of the driving-shaft B, and connected, by a rod, *m*, with an arm, *n*, extending from a rock-shaft, *o*, on which said brush is mounted. The rock-shaft *o* has its bearings in the sides of the frame A, and by its action the motion imparted to the brush I is similar to that of a brush operated by hand, and the dust adhering to the surface of the carpet, after the same has passed the beaters, is effectually removed. The back-brush H receives a revolving motion imparted to it by a belt, *p*, extending from a pulley on the driving-shaft over a pulley on the shaft of said brush, and by the action of this brush the dirt adhering to the surface of the carpet before it passes through under the beaters is scraped off. Beneath the flexible platform D is a dust-receptacle, J, and if the frame A is well covered up while the machine is in operation the largest portion of the dust collects in said receptacle.

By this machine carpets of all sorts can be cleaned with the greatest ease and facility, all

danger of injuring the carpet is avoided, and the carpet passes through the machine without requiring any attention.

What we claim as new, and desire to secure by Letters Patent, is—

1. The rigid beaters C, secured to the ends of elastic arms *h*, in combination with trip-wheels *d*, tappet-levers *e*, rods *f*, belt *g*, flexible platform D, and feed-rollers G, all constructed and operating substantially as shown and described.

2. The oscillating front brush I and revolving back brush H, in combination with the rigid beaters C, flexible platform D, and feed-rollers G, substantially as set forth.

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