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(54) Title: BROOM HEAD

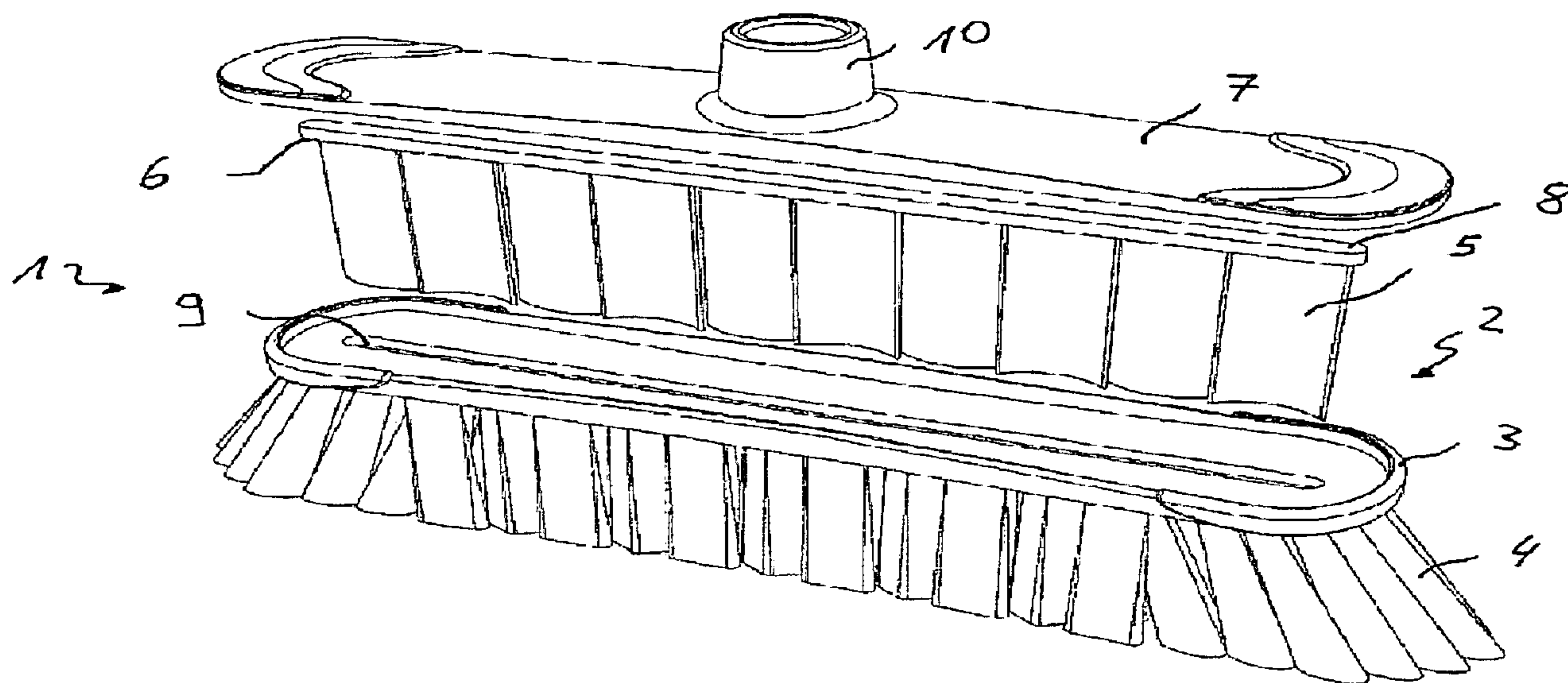


Fig. 1

(57) **Abrégé/Abstract:**

In respect of the problem of indicating a broom head (1) which can be produced such that its individual parts are easy to store, wherein the individual parts are fixed to one another following production of the broom head, said broom head (1) comprising a basic body (2) with a plate (3), from which project first cleaning elements (4) for directing towards a surface which is to be cleaned, wherein the plate (3) also has second cleaning elements (5), which assist the cleaning performance of the first cleaning elements (4), projecting from it, is characterized in that the second cleaning elements (5) are arranged on a module (6) which can be introduced, as a separate individual part, into an aperture (9) of the plate (3) such that the second cleaning elements (5) engage through the plate (3).

ABSTRACT

In respect of the problem of indicating a broom head (1) which can be produced such that its individual parts are easy
5 to store, wherein the individual parts are fixed to one another following production of the broom head, said broom head (1) comprising a basic body (2) with a plate (3), from which project first cleaning elements (4) for directing
10 towards a surface which is to be cleaned, wherein the plate (3) also has second cleaning elements (5), which assist the cleaning performance of the first cleaning elements (4), projecting from it, is characterized in that the second
cleaning elements (5) are arranged on a module (6) which can be introduced, as a separate individual part, into an aperture
15 (9) of the plate (3) such that the second cleaning elements (5) engage through the plate (3).

Broom head

Description

5 Technical field

The invention relates to a broom head according to the preamble of patent claim 1.

10 Prior art

Broom heads, which can be connected to a handle, are known from the prior art. Such a broom head comprises a basic body with a plate, from which cleaning elements to be turned toward
15 a surface to be cleaned project. Moreover, lamellae project from the plate in the direction of the surface to be cleaned and assist the cleaning capacity of the cleaning elements.

The lamellae can remove from a surface to be cleaned dirt
20 particles or moisture which can be removed only inadequately by the cleaning elements, in particular bristles.

The lamellae may be fastened either to the plate or to a cap which has a receptacle for a handle. When a broom head is
25 being manufactured, the plate and the cap are connected to each other in order to form the basic body. In this manufacturing method, however, considerable problems arise where stockkeeping is concerned, since both a plate with

lamellae and a cap with lamellae are relatively bulky and difficult to store.

Presentation of the invention

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The object on which the invention is based, therefore, is to specify a broom head which can be manufactured so that its individual parts can easily be kept in stock, the individual parts being connected firmly to each other after the
10 manufacture of the broom head.

The present invention achieves the abovementioned object by means of the features of patent claim 1.

15 According to the invention, the second cleaning elements are arranged on a module which can be inserted as a separate individual part into the plate. It was recognized, according to the invention, that a second module makes it possible to stack and store the plate and cap easily as flat individual
20 parts, since these themselves have no second cleaning elements. The separate module likewise has a flat configuration and can therefore be stored easily. In a manufacturing process, these three individual parts can quickly be joined together captively and thus form a broom
25 head. The flat individual parts allow simple and cost-effective stockkeeping and therefore cost-effective production of the broom head.

The object initially mentioned is consequently achieved.

The module could be fixed between the plate and a cap. The module can thereby be accommodated positively and/or in a materially integral manner between the plate and cap. The plate and cap may be adhesively bonded, welded or latched to one another.

The module could have a ridge, from which the second cleaning elements, in particular lamellae, project, the second cleaning elements passing through a recess in the plate. The ridge can serve as an abutment which can be laid against the plate. Moreover, a plurality of individual second cleaning elements arranged in the manner of a palisade can be gripped in their entirety and inserted into the plate.

15

The cap could have a receptacle for a handle. A broom handle can thereby be plugged onto or screwed to the broom head.

The first cleaning elements could be configured as bristles. The bristles may be manufactured from synthetic materials or from natural fibers.

20

The second cleaning elements could be manufactured from an elastomer. An elastomer, in particular rubber, can perform an outstanding wiping function.

25

The second cleaning elements could be manufactured from a foam. Foams are cost-effective and lightweight.

The second cleaning elements could be configured as lamellae. During sweeping, lamellae can pick up and brush away moisture especially effectively with their lamella surface or wiping surface. Moreover, lamellae can loosen stubborn dirt and catch
5 hairs and smaller dirt particles.

The lamellae could have a straight, bent or curved configuration. The geometry of the lamellae may be selected according to the wiping function requirements. It is
10 conceivable to use U-shaped, V-shaped, X-shaped, round or oval lamellae.

The broom head could be manufactured from three individual parts, to be precise from a plate with first cleaning
15 elements, from a cap and from the module. These three individual parts can easily be joined together by hand.

Brief description of the drawing

20 In the drawing:

fig. 1 shows an exploded illustration of a broom head which is composed of three individual parts,

25 fig. 2 shows an illustration in which the module is inserted partially into the plate,

fig. 3 shows an illustration in which the module is inserted completely into the plate,

fig. 4 shows an illustration in which the cap is placed onto the plate, and

5 fig. 5 shows an illustration of the ready-assembled broom head.

Implementation of the invention

10 Fig. 1 shows an exploded illustration of a broom head 1 comprising a basic body 2 with a plate 3, from which first cleaning elements 4 to be turned toward a surface to be cleaned project, lamellae, which assist the cleaning capacity of the first cleaning elements 4, also projecting as second
15 cleaning elements 5 from the plate 3.

The second cleaning elements 5, to be precise the lamellae, are arranged on a module 6 which can be inserted as a separate individual part into a recess 9 of the plate 3 in such a way
20 that the second cleaning elements 5 pass through the plate 3.

The second cleaning elements 5 are arranged on a module 6 which can be inserted as a separate individual part into the plate 3. The module 6 can be fixed between the plate 3 and a
25 cap 7.

Fig. 2 shows that the module 6 has a ridge 8, from which the lamellae project, the lamellae passing through a recess 9 in the plate 3. The recess 9 is configured as an elongate slot. A

plurality of lamellae are arranged on the ridge 8 and can be introduced together in their entirety into the recess 9.

The cap 7 has a receptacle 10 for a handle. The receptacle 10
5 is formed integrally with the cap 7.

The first cleaning elements 4 are configured as bristles. The second cleaning elements 5 are configured as lamellae. The lamellae are surrounded on all sides by the bristles.

10

The lamellae are curved and have an essentially U-shaped configuration. The lamellae are manufactured from an elastomer. The individual lamellae are arranged in such a way that a convexly curved lamella surface is followed along the
15 ridge 8 by a concavely curved lamella surface.

Fig. 3, 4 and 5 show that the broom head 1 is manufactured from three individual parts, to be precise from a plate 3 with first cleaning elements 4, from a cap 7 and from the module 6.

20 Fig. 5 shows the broom head 1 in the ready-assembled state.

The three individual parts form the basic body 2.

Patent claims

1. A broom head (1), comprising a basic body (2) with a plate (3), from which first cleaning elements (4) to be
5 turned toward a surface to be cleaned project, second cleaning elements (5), which assist the cleaning capacity of the first cleaning elements (4), also projecting from the plate (3), **characterized in that** the second cleaning elements (5) are arranged on a module (6) which can be
10 inserted as a separate individual part into a recess (9) of the plate (3) in such a way that the second cleaning elements (5) pass through the plate (3).
2. The broom head as claimed in claim 1, characterized in
15 that the module (6) is fixed between the plate (3) and a cap (7).
3. The broom head as claimed in claim 1 or 2, characterized in that the module (6) has a ridge (8), from which the
20 second cleaning elements (5) project, the second cleaning elements (5) passing through the recess (9) in the plate (3).
4. The broom head as claimed in one of the preceding claims,
25 characterized in that the cap (7) has a receptacle (10) for a handle.

5. The broom head as claimed in one of the preceding claims, characterized in that the first cleaning elements (4) are configured as bristles.

5 6. The broom head as claimed in one of the preceding claims, characterized in that the second cleaning elements (5) are manufactured from an elastomer.

10 7. The broom head as claimed in one of the preceding claims, characterized in that the second cleaning elements (5) are manufactured from a foam.

15 8. The broom head as claimed in one of the preceding claims, characterized in that the second cleaning elements (5) are configured as lamellae.

9. The broom head as claimed in claim 8, characterized in that the lamellae have a straight, bent or curved configuration.

20 10. The boom head as claimed in one of the preceding claims, characterized in that the broom head (1) is manufactured from three individual parts, to be precise from a plate (3) with cleaning elements (4), from a cap (7) and from
25 the module (6).

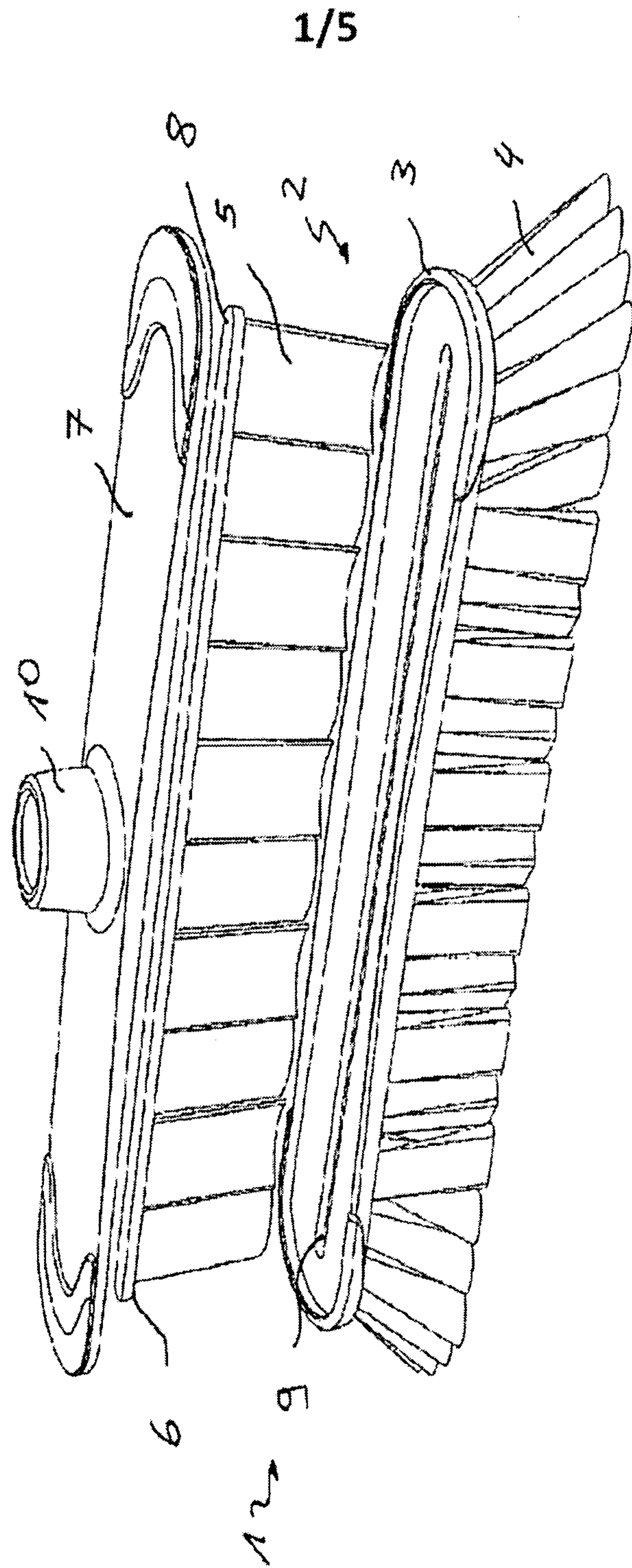


Fig. 1

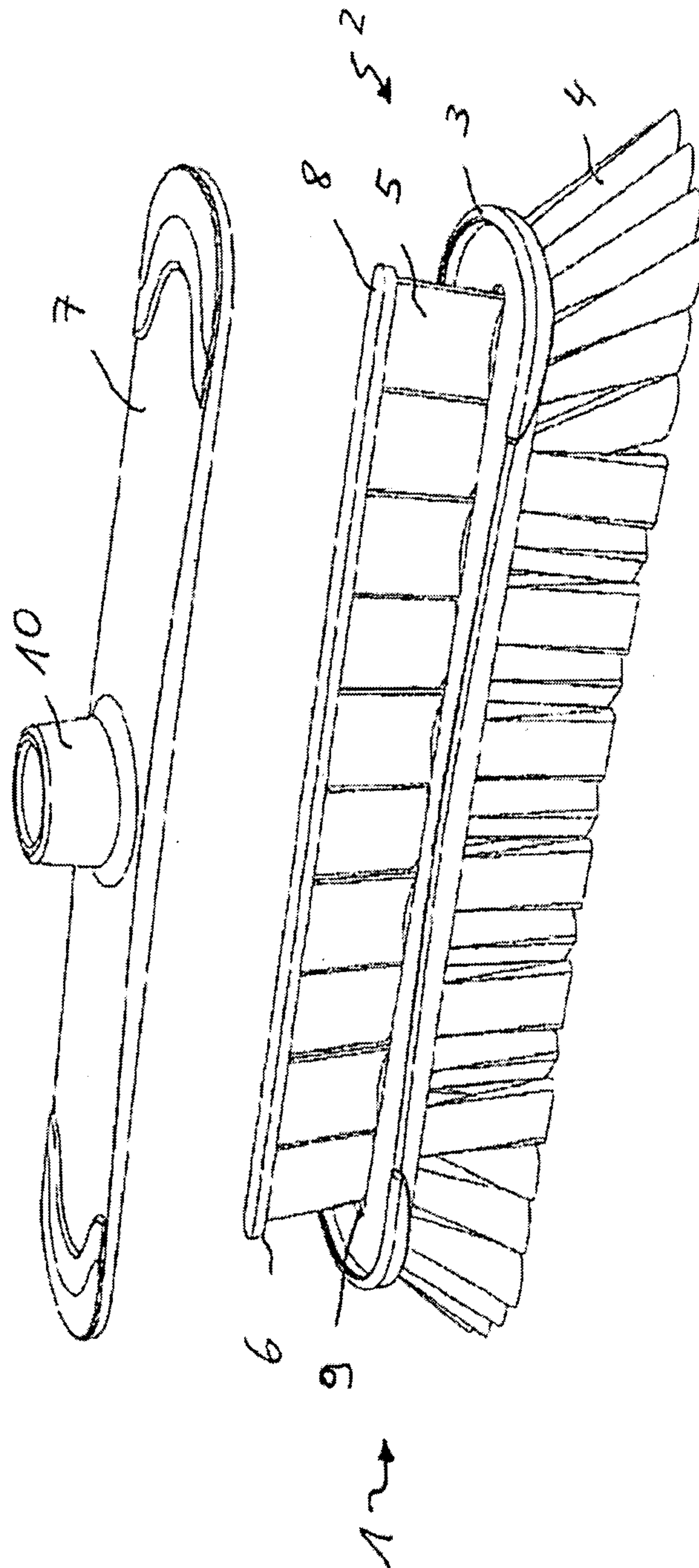


Fig. 2

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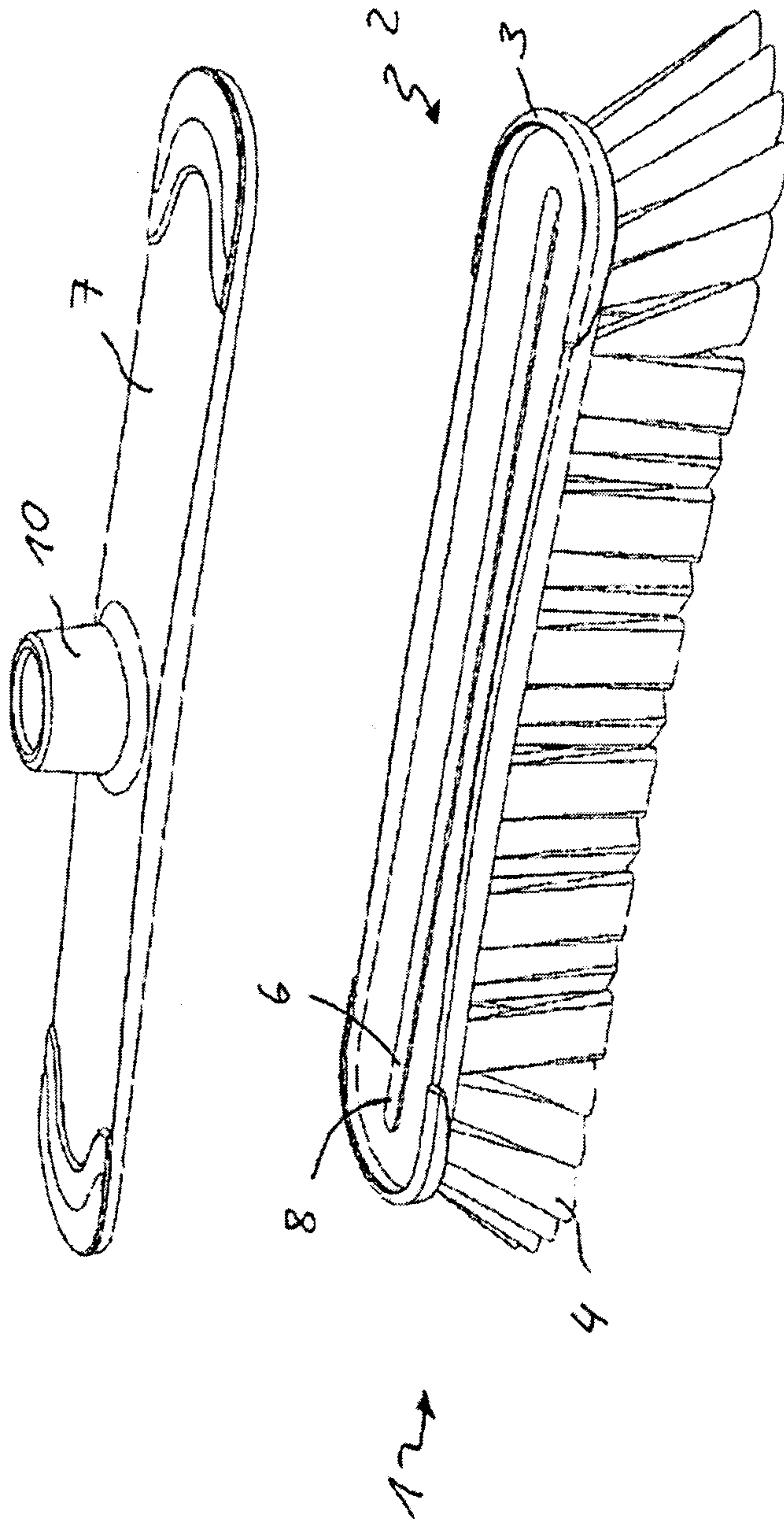
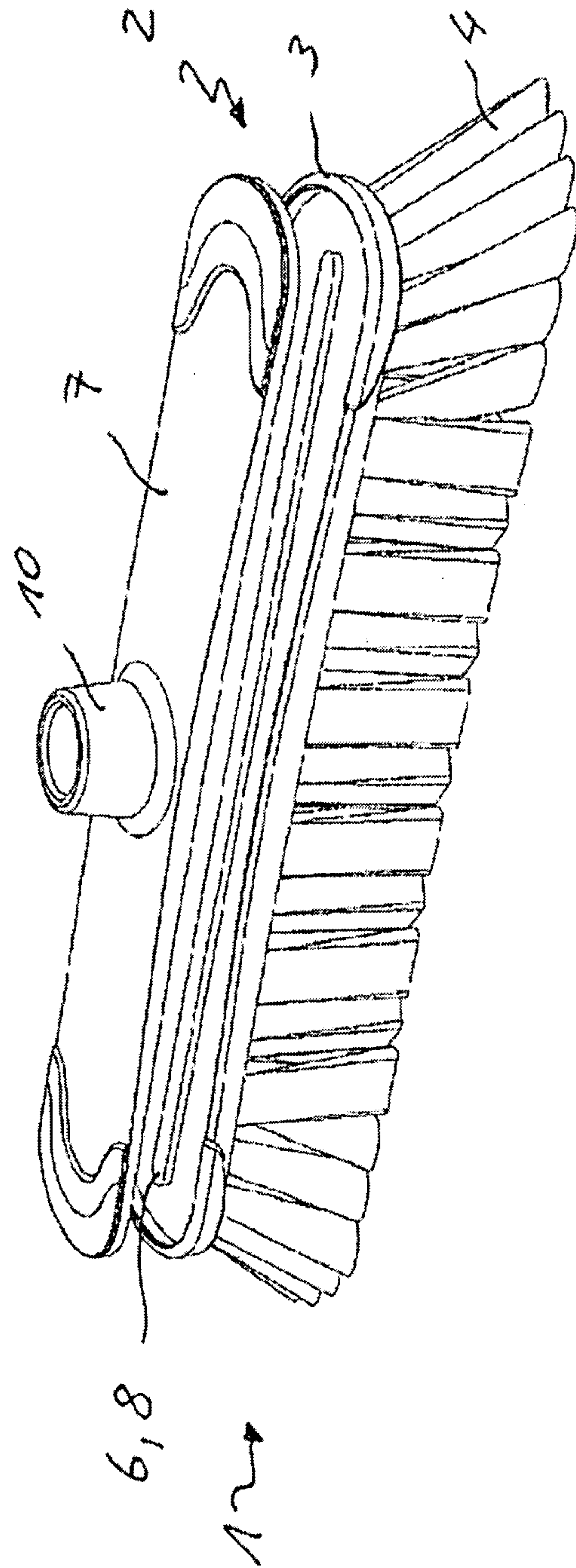


Fig. 3



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Fig. 4

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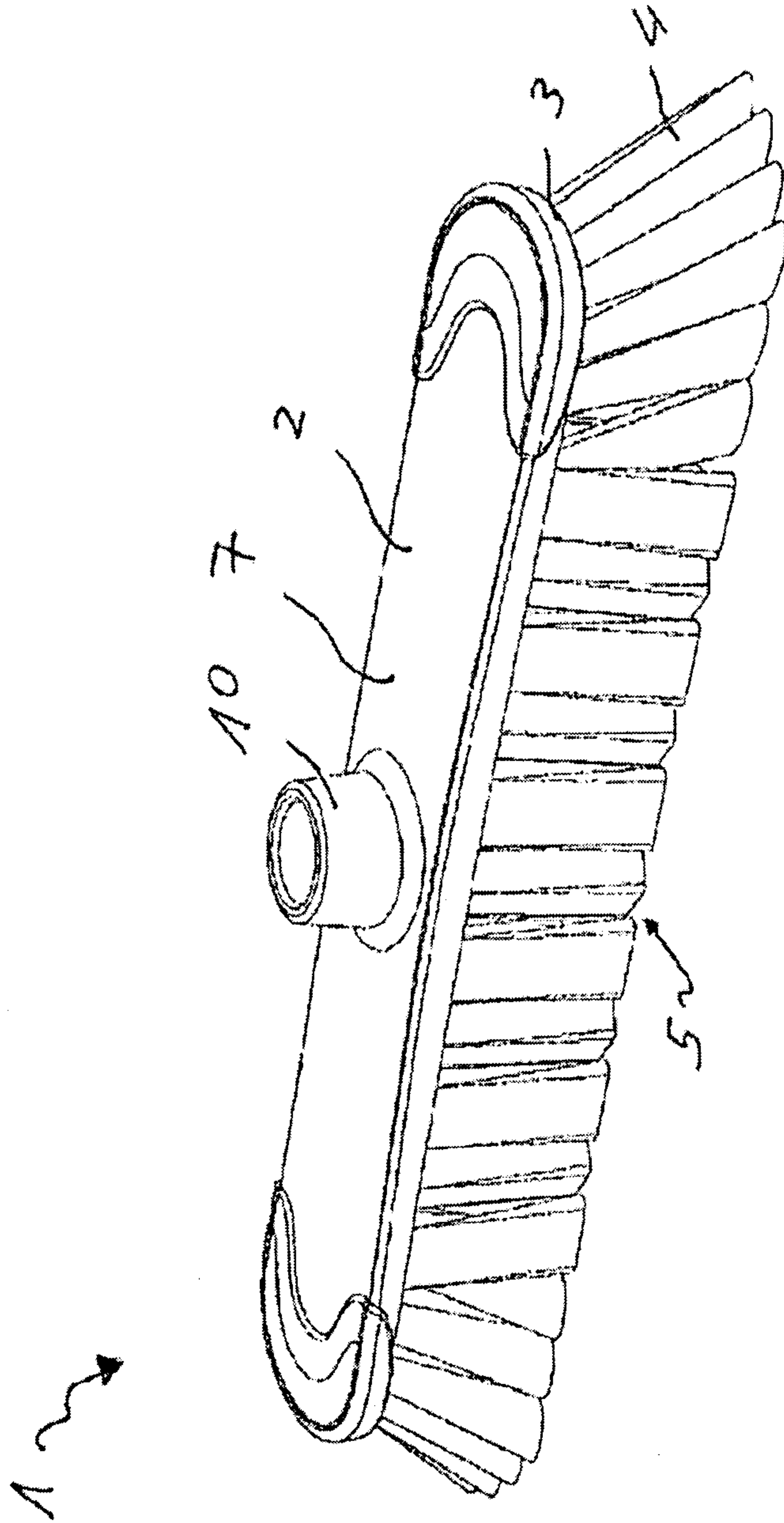


Fig. 5

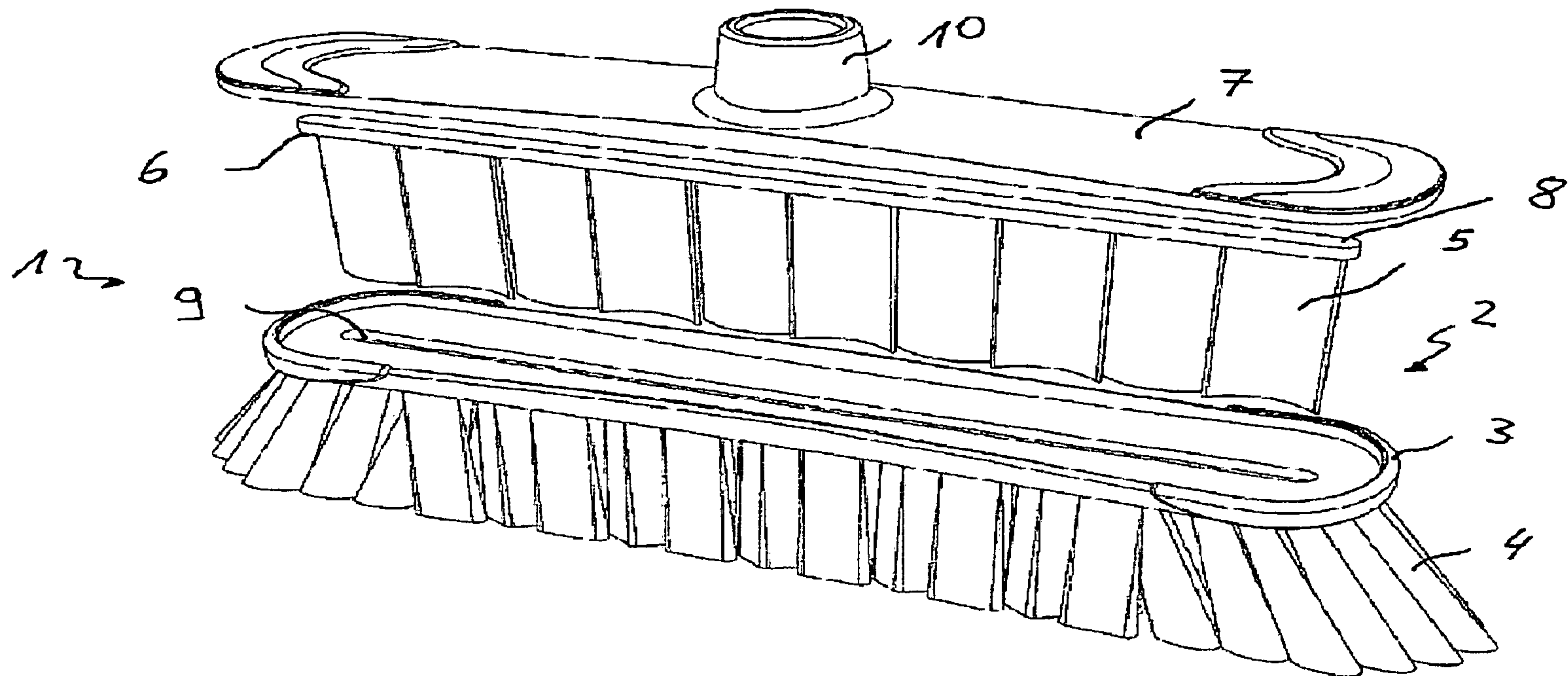


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