E. L. COUCH.

BELT.

APPLICATION FILED APR. 4, 1914.

1,313,266. Patented Aug. 19, 1919.

Fig. 1.

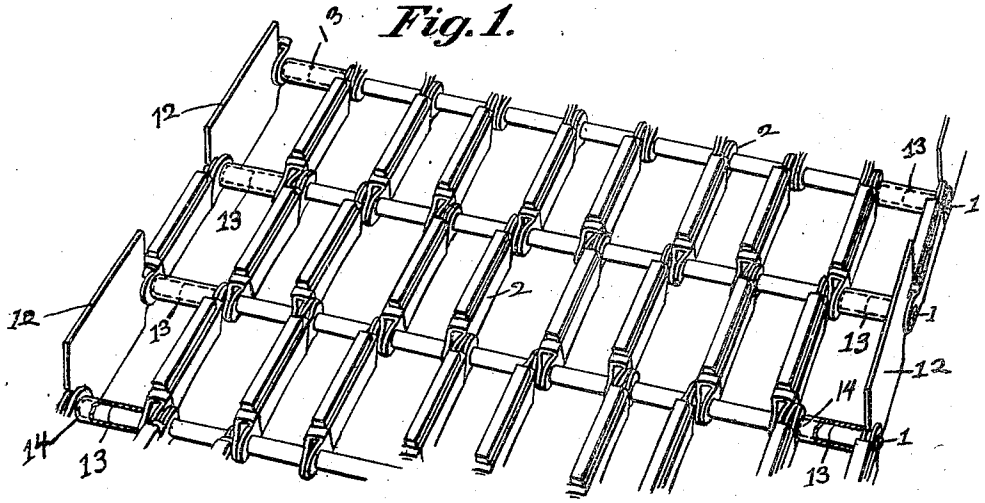


Fig. 2.

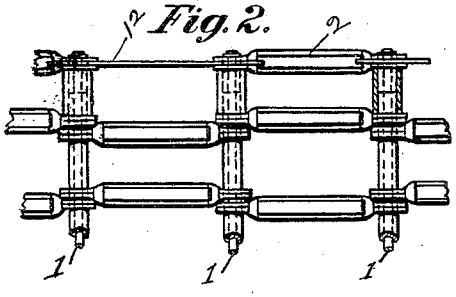


Fig. 4.

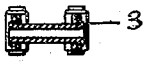


Fig. 3.

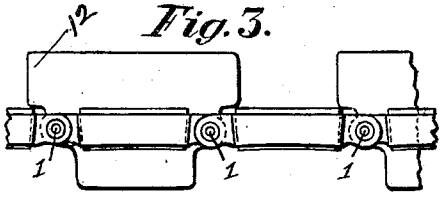


Fig. 5.

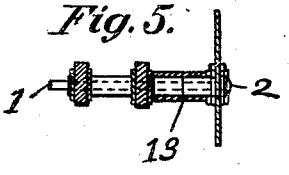


Fig. 6.

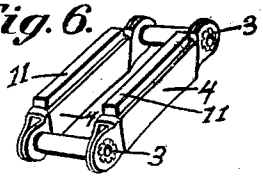
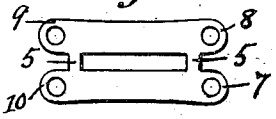


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELBERT L. COUCH, OF HARTFORD, CONNECTICUT, ASSIGNOR TO COUCH-DEAN CORPORATION, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

BELT.

1,313,266. Specification of Letters Patent. Patented Aug. 19, 1919.

Application filed April 4, 1914. Serial No. 829,691.

To all whom it may concern:

Be it known that I, ELBERT L. COUCH, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Belts, of which the following is a specification.

This invention relates to belts. While a belt involving the invention is probably susceptible of general use, it is of prime utility when incorporated in a dish-washing machine. A belt acting as a carrier when incorporated in this type of machine obviously supports fragile and frangible articles such as plates of different kinds. I have two elemental motives in view, one the provision of a belt by which the passage of washing water therethrough is insured, and the other by which the articles are supported for movement from place to place without possibility of the articles being broken. I provide an organization by which both these objects are attained in an eminently satisfactory manner.

In the drawings accompanying and forming part of the present specification I show in detail a form of embodiment of the invention which to enable those skilled in the art to practise the same will be set forth fully in the following description. I do not necessarily restrict myself to this particular showing; I may depart therefrom in several respects within the scope of the invention defined by the claims following said description.

Referring to said drawings:

Figure 1 is a perspective view of a portion of a belt involving the invention.

Fig. 2 is a top plan view of an intermediate part of the belt.

Fig. 3 is a side elevation of the same.

Fig. 4 is a sectional end view of a link.

Fig. 5 is a sectional view of a portion of the belt including parts of a rod and a link and one of the guide plates.

Fig. 6 is a perspective view of one of the links, and

Fig. 7 is a view of part of a link prior to being formed up.

Like characters refer to like parts throughout the several views.

The belt includes in its make-up a plurality of rods as 1. These rods, of which there may be any convenient number, are disposed substantially parallel with each other, and they may be of one or more sections. Said rods are held in position by a series of links as 2, the terminals of the links being perforated for the passage of the respective parallel rods. One of the links is shown in Fig. 6 and like the others, comprises a pair of practically duplicate side members fastened together at their ends by bushings 3. It is through these bushings in fact that the rods 1 extend. The side links 4 are preferably constructed from a single piece of material made from a stamping as shown for instance by Fig. 7. The connecting portions 5 are then bent, so that the ends 7 and 8, and 9 and 10 respectively come together. A piece of fiber or other equivalent soft material as 11 having been inserted in the longitudinal seat or opening of the link, the unit is bound rigidly together and forms a complete article as shown for instance by Fig. 6. The links constructed as described are then placed upon the rods 1, for example as shown by Figs. 1 and 2.

Some of the links are constructed with the side plate or flange 12 as a side member, and these side members with said flanges or plates are placed upon the belt at intervals or otherwise at its edges or elsewhere as indicated in Fig. 1. Said flanges or side plates act as guides to the belt in passing over the drums on which the belt travels, and they also hold the articles in place.

I find it desirable to have some of these links divided as at 13. This is of advantage in assembling the belt for each one half link may be inserted separately or the edge of the belt or a portion thereof, constructed of alternate side links and flanges, may be connected and placed upon the belt together. In this particular structure a sleeve as 14 is placed over the divided bushings.

It is my intention to preferably use the belt in the form of an endless carrier and particularly in a machine whose office is to convey articles. The belt is constructed in the manner described with the end in view of having a large number of separate elements or units which can be readily replaced when any one is injured or worn out. The fiber 11 is used preferably because metal or other hard materials are likely to scratch or injure the articles to be carried, and on the other hand these articles are liable to injure a metal belt. The fiber used is very tough and difficult to injure, yet it is soft enough

to prevent injury to any articles which are being moved from place to place. When any of this fiber or equivalent soft material is worn, it may be readily removed and a new part inserted in its place.

As will be inferred I do not restrict myself to the particular form of carrier shown, as I contemplate the provision of any conveyer provided with a body portion of metal or other material having openings, pockets or other means to hold or separate a carrying surface of a different material which is relatively soft. The units of the carrier as represented are comparatively small, each containing a base portion and a carrying portion; they may be varied as to size or otherwise as desired. As I have already noted, the appliance is particularly valuable as a carrier in a dish-washing machine.

What I claim is:

1. A carrier for frangible articles while being washed, the article carrying portion of the carrier being of open-work construction to permit the passage of the substance used in washing the articles through the openings of said carrier, and said article carrying part of the carrier having a portion softer than the body of the carrier, which directly supports the articles to prevent breakage of the same during the movement of the carrier, the body of the carrier having means to grip the soft portion of said carrier and said soft portion consisting of a plurality of units spaced from each other transversely of the line of movement of the carrier.

2. A carrier for frangible articles while being washed, the article carrying portion of the carrier being of open-work construction to permit the passage of the substance used in washing said articles through the openings of said carrier, and said article carrying part of the carrier having a portion softer than the body of the carrier, which supports said articles during movement of the same, the body of the carrier being channeled and the soft portion of the carrier being held in the channeled portion of the carrier.

3. A carrier for frangible articles while being washed, the article carrying portion of the carrier being of open-work construction to permit the passage of the substance used in washing the articles through the openings of the carrier and said article carrying part of the carrier having a portion softer than the body of the carrier, which directly supports the articles while being washed, the article carrying portion of the carrier being softer than the body thereof, and said body gripping said soft portion, and the latter being composed of a number of units separated from each other transversely and in the line of movement of the carrier.

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

ELBERT L. COUCH.

Witnesses:
L. A. HOWARD,
BESSIE ROURKE.