Dec. 4, 1928.

M. BUDWIG ET AL

1,694,161

INFANTILE NAPKIN

Filed March 3, 1926

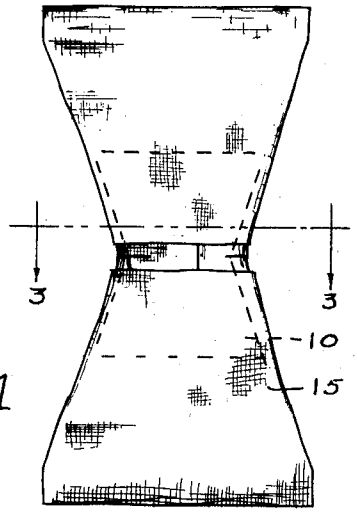

FIG.- 1

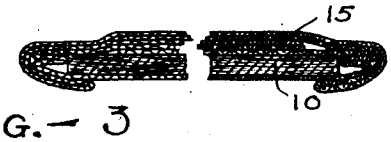

FIG.- 3

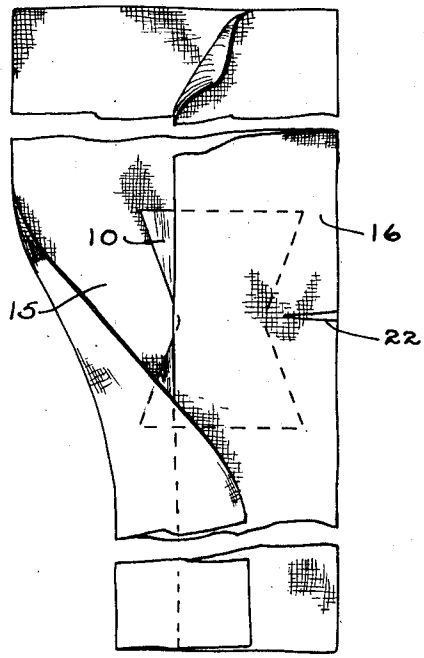

FIG.- 4

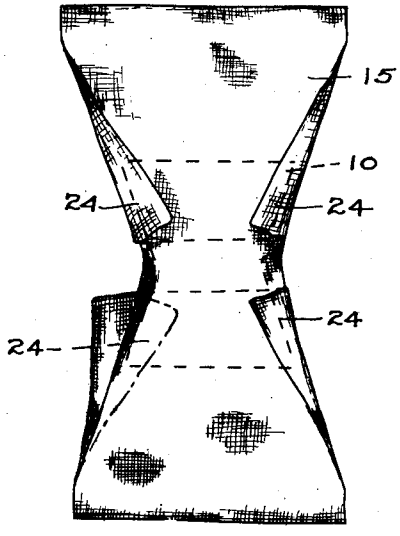

FIG.- 2

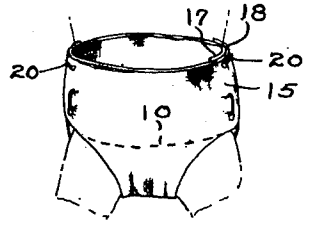

FIG.- 5

Inventors

Maurice Budwig

Joseph N. Schneider

By Bates, Macklin, Schick & Teare

Attorneys

Patented Dec. 4, 1928. 1,694,161

UNITED STATES PATENT OFFICE.

MAURICE BUDWIG AND JOSEPH N. SCHNEIDER, OF CLEVELAND, OHIO.

INFANTILE NAPKIN.

Application filed March 3, 1926. Serial No. 91,935.

This invention is concerned with bandages and more particularly with sanitary napkins for infantile use. The object of our invention is to provide a napkin or diaper having characteristics of economical construction whereby the napkin may be destroyed or readily disposed of after but one use.

More specifically, our invention is concerned with the provision of a diaper construction embodying the use of a moisture absorbing pad such as a pad formed of cellulose wood fibers and a pad retaining envelope of a shape and size which will permit the convenient and comfortable application of the pad to the genital region of the body of the infant.

A further object of our invention is to provide a diaper for infants which will prevent the chafing of the infant in the event it is not immediately removed after it has become soiled and which will have deodorizing characteristics.

Other objects of our invention will hereinafter become apparent from the following description referring to the accompanying drawings illustrating some preferred forms thereof. The essential characteristics are summarized in the claims.

In the drawings, Fig. 1 is a plan view of a sanitary napkin incorporating the features of our invention. Fig. 2 is a view similar to Fig. 1 but showing the reverse side of the napkin. Fig. 3 is an enlarged cross-sectional view taken substantially across the line 3—3 of Fig. 1. Fig. 4 is a plan view showing the method of enveloping the moisture absorbing pad. Fig. 5 illustrates the application of the napkin to the body of the infant.

Our invention contemplates the provision of a sanitary pad or diaper for infant application and we propose to use a moisture absorbing pad formed of loosely packed layers of cellulose sulphite fibers and an economical gauze or fabric envelope whereby the diaper may be produced at a sufficiently low cost to warrant the disposal of the napkin when once soiled and we propose to use a pad 10 of a shape which is also conducive to comfortable and convenient application to the infant body. Such a pad shape is shown in Fig. 1 and conforms in outline to the general cross-sectional shape of an hour glass.

The specific shape of the pad may comprise an outline of two trapezoids inverted and joined along the shorter bases thereof. The economy effected in the use of such a shape will be apparent for a large number of pads 10 may be scored or cut from a web of cellulose fiber layers with a minimum amount of waste, there being only waste portions along the marginal edges of the sheet of stock being cut into pads.

As shown in Fig. 3, the pad 10 may comprise a large number of layers of loosely packed cellulose wood fiber and we find such a pad, when having a thickness of approximately three-eighths of an inch will present sufficient material to absorb the expelled fluid without resulting in over saturation of the napkin.

We provide an envelope for retaining the layers of fiber forming the pad in superposed relation and this envelope, as shown in Fig. 4, may comprise a sheet of coarsely woven gauze 15 which is of such width that it may be folded about both sides of the pad 10 to leave substantial marginal spaces 16 between the folded side edges of the envelope and the edges of the pad. The folded width of the envelope should be such as to exceed one-half of the circumference of the waist line of an average sized infant whereby the sides may overlap as shown at 17 and 18 in Fig. 5 when applied to the body of the infant, thus permitting the overlapping sides to be secured by pins 20.

The length of the envelope should be such as to greatly exceed the length of the pad whereby the entire waist portion of the napkin will comprise gauze only, with the pad proper limited to the crotch region of the infant. To permit the gauze envelope 15 to more readily conform to the body of the infant, oppositely disposed slits 22 may be formed to extend inwardly from the folded edges of the envelope (see Fig. 4); these slits being formed substantially in alignment with the meeting point of the converging side edges of the pad 10. Additional folds 24 may then be formed with the fold creases extending substantially parallel to, but spaced away from, the converging side edges of the pad, as shown in Fig. 2. The napkin shape thus presented will permit a ready application of the napkin to the infant without discomfort and the pad will be disposed in such position as to prevent escape of any fluid from the napkin.

From the foregoing description of our invention it will be apparent that we provide an infantile napkin or diaper construction which is economical in shape and which may be readily applied to the infant body with-

out any resulting discomfort. The shape of the moisture absorbing pad is such that the economy is obtained in the manufacture of the pad thus making available an infantile napkin which may be destroyed or disposed of after it has once been soiled. Furthermore a pad formed of the material herein set forth will prevent chafing and incidentally the formation of irritating rashes in the event the soiled diaper is not immediately removed. The use of cellulose sulphite fibers for the purpose herein set forth is also desirable due to its odor neutralizing characteristics.

It is to be understood that modifications, other than those illustrated or mentioned may be made in the construction and arrangement of the parts comprising the embodiment of our invention without materially affecting the principle of application thereof, which is, the use of an absorbing pad having a fabric envelope which is greater in all of its dimensions than the pad.

We claim:

1. An infantile diaper having an inner moisture absorbing pad formed, for example, of cellulose wood fibers and having straight side edges converging toward the central region of the pad and an outer envelope formed of coarse mesh gauze comprising a single piece of fabric of considerably greater length than the pad length, and folded to present an increasing width greater than the pad width, the end portions of said gauze piece being refolded over the pad ends with the fold creases spaced a substantial distance from the end edges of the pad, whereby the pad is limited to the crotch region of the infant and only the gauze portion of the diaper contacts with the stomach, back and hips of the infant when the diaper is applied.

2. A bandage in the form of an infantile diaper comprising an inner pad of moisture absorbing material formed, for example, of sulphite cellulose wood fibers, and having a plane shape conforming to two inverted abutting trapezoids, and an outer gauze envelope conforming to the shape of the pad, but of sufficient length to extend considerably beyond the ends of the pad, whereby the waist, hip and back portions of the bandage when applied to the infant body comprises gauze fabric only.

In testimony whereof, we hereunto affix our signatures.

MAURICE BUDWIG, M. D.
JOSEPH N. SCHNEIDER.