C. W. SHEVLIN.

CONTAINER.

APPLICATION FILED JUNE 28, 1913. RENEWED JULY 3, 1916.

1,216,617. Patented Feb. 20, 1917.

Fig. 1.

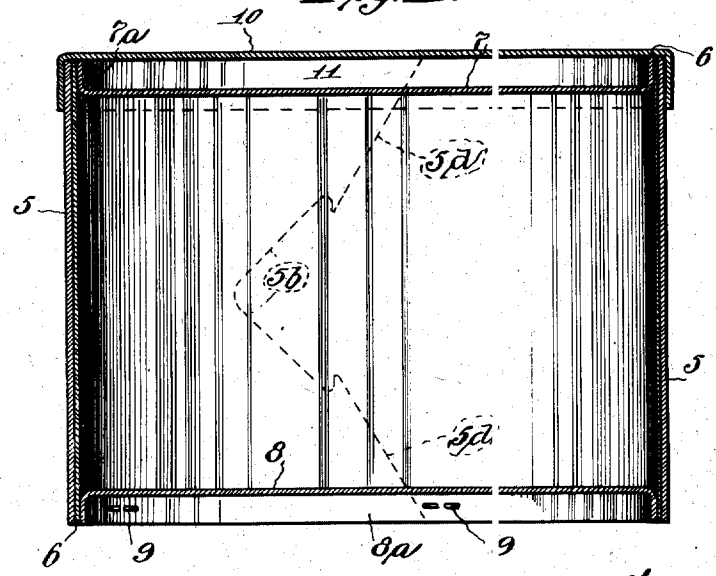


Fig. 3.

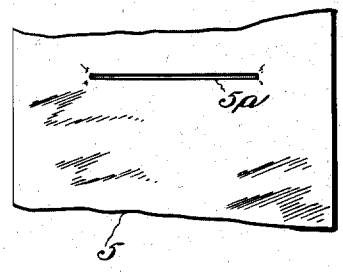
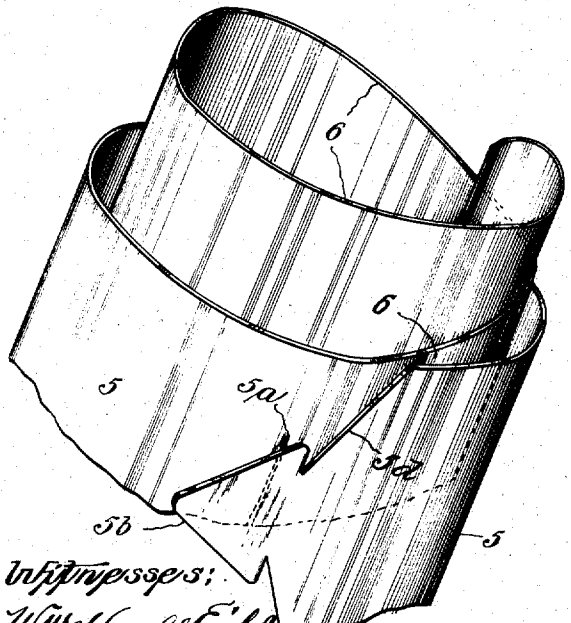
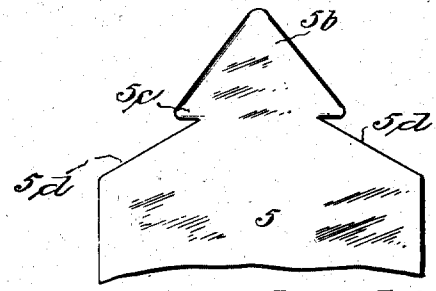


Fig. 2.





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HEADLIGHT ADJUSTER FOR VEHICLES.

APPLICATION FILED JUNE 27, 1911.

1,216,619. Patented Feb. 20, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

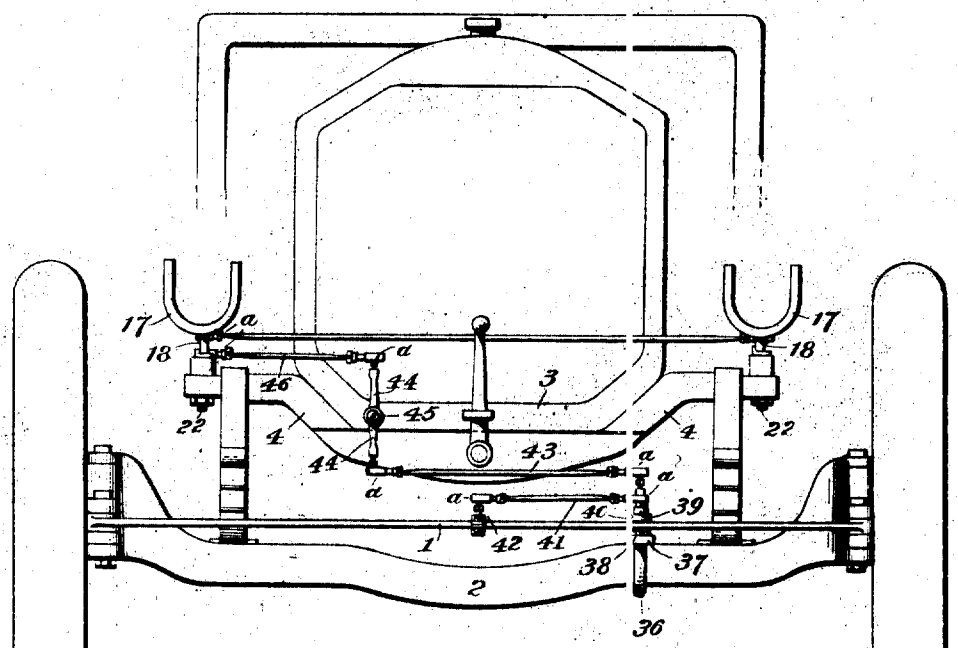
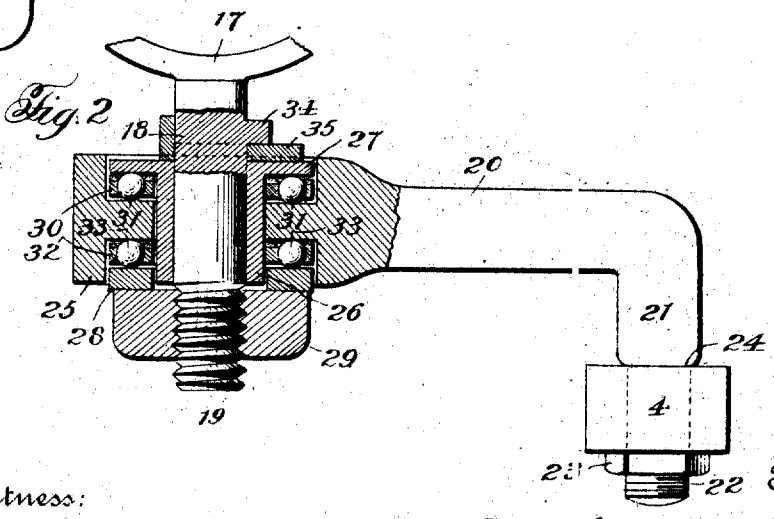


Fig. 2



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2 SHEETS—SHEET 2.

Fig. 3.

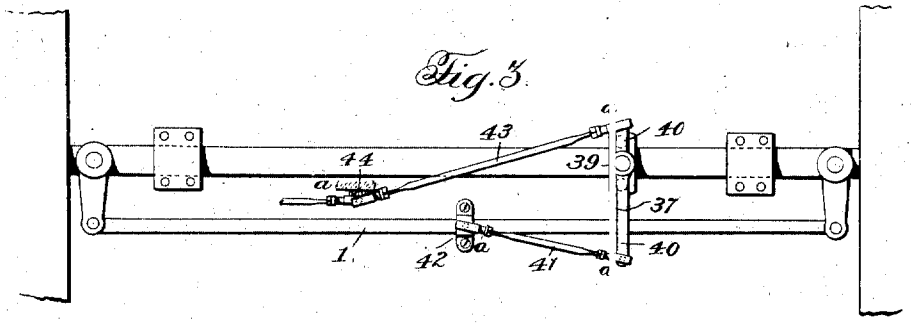


Fig. 4.

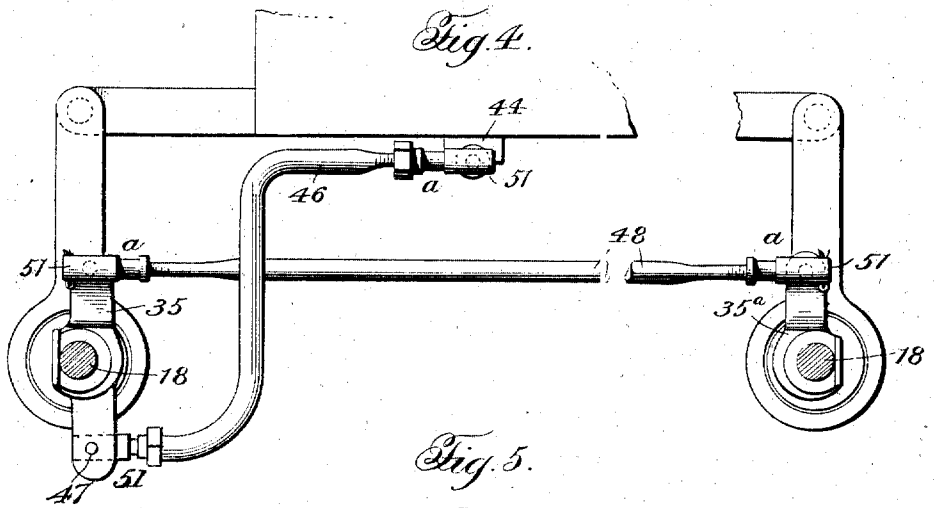
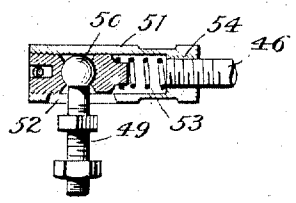


Fig. 5.



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Inventor:

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UNITED STATES PATENT OFFICE.

CHARLES W. SHEVLIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO CLIMAX CONTAINER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

CONTAINER.

1,216,617. Specification of Letters Patent. Patented Feb. 20, 1917.

Application filed June 28, 1913, Serial No. 776,202. Renewed July 3, 1916. Serial No. 107,465.

To all whom it may concern:

Be it known that I, CHARLES W. SHEVLIN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Container, of which the following is a specification.

My invention relates to the provision of a container, or tubular receptacle made from a tissue infused or impregnated with a suitable substance to render the article as a whole impervious to air, moisture, or liquids, so that the receptacle may be used either for containing liquids and greasy substances, the same being proof against leakage of the most penetrating of such substances; or for containing other articles of merchandise, and protecting same from the action of the exterior air or moisture.

As is known, when fibrous articles are impregnated so as to render them impervious to water, they are rendered unsuitable for gluing with any of the substances now employed for such a purpose. Besides this, glue or any of the known adhesives are not desirable substances to use in the presence of moisture, as the moisture with the glue substances, besides impairing their adhesive properties, affords conditions favorable to the growth of bacteria, which growth is ordinarily known as putrefaction. The use of such metals as are available is hardly less undesirable than glue, as the available metals in the presence of air and moisture undergo oxidation which is liable to cause various chemical changes in substances present and subject to such action.

It has, therefore, been one of the problems which confronted me, and one of the objects of my present invention, to arrive at a method of forming such a container, without using any of the known adhesives or available metals for securing the outer end of the outer fold or casing, so that it will not be liable to disengagement. It will be understood that the integrity of my package in handling largely depends upon the strength of the outer casing, as the impregnation of the tissue causes considerable weakening, and the impregnating materials, while permitting some degree of adhesion between successive layers, are not what are generally regarded as adhesives.

I attain the above objects by a preferred form of container illustrated in the accompanying drawing, in which—

Figure 1 is a central vertical section through a completed container;

Fig. 2 is a fragmentary perspective view of the outer casing of the container in position for locking, the impregnated liner being shown partially withdrawn; and

Fig. 3 is a fragmental plan of the two ends of the casing portion of the blank.

Similar reference characters designate similar parts throughout the several views.

In carrying out my invention I take a sheet of fibrous material, as designated by the numeral 5, preferably a suitable grade of paper, of a length and width commensurate with the size and length of the container required, and, at one end thereof, I form a spear head, 5^b, preferably of the shape shown in Fig. 3. It will be noted that the edges of the blank are tapered at 5^a, to the inner portions of the shoulders of the spear head, 5^c, so that when the casing is made into a cylinder, the edges 5^d will be disposed spirally in the circumference of the cylinder, and in this way will be caused to remain snugly in position, and will not be liable to be rolled back through handling or accident. It will be seen that this construction will hold the edges 5^d in place even if no adhesive whatever were used.

At a suitable distance from the spear head 5^b, to form a casing of the desired size, I provide a transverse slot 5^a, into which the said spear head 5^b is forced, the shoulders 5^c of the said spear head binding same in place.

The lining portion of the blank, 6, having first been impregnated with, in this case preferably paraffin wax, or a material suitable for the use to which the package is to be put, is coiled up and inserted into the outer casing, and, due to its expansiveness resulting from coiling, will tend to expand and contact with the inner surface of the outer wall 5. This tendency, however, should be supplemented by a suitable former or mandrel, the same being heated, and the action of which will secure a uniform and perfect contact between the outer casing and the lining, thus causing them to adhere together. The inner portion or lining is thus impregnated, while the outer casing remains only slightly coated and unimpregnated, thus rendering the package walls moisture

proof, while, at the same time, the outside wall retains its original strength, the spear being permanently sealed in place between the inner face of the casing and the outer fold of the lining.

I prefer to make the two end closures, 7 and 8, as follows: A circular sheet of paper or tissue is formed in a die so as to have a turned up outer edge or periphery, 8^a, making a cup-shaped member. One of which cup-shaped members, after the same has been impregnated with paraffin, or other suitable impregnating substance, is then inserted or forced into the cylinder from each end, as very clearly shown in Fig. 1. The form supporting the bottom member, 8, being heated, the paraffin is caused to adhere or unite with the impregnated lining at that point, and, to further insure its stability, staples, 9, are driven through the cylinder and the flange 8^a of the bottom member 8 at suitable intervals upon its periphery. The metal of the staples in this case is sufficiently removed from proximity to the contents of the container as to be free of fear of the contamination thereof. To still further make the union complete between the flange, 8^a, of the bottom and the inner lining, 6, at their point of contact, a small quantity of melted paraffin is allowed to run into the crevice between the members while they are still hot, and there allowed to cool with them. As the mandrel upon which the top, or member 7, is inserted, is not heated, the side or flange 7^a does not adhere to the lining 6, but is merely held in place by a force fit, thus allowing its removal without in any way marring or injuring the properties of the package as a whole. But, in case it is desired to have the package absolutely sealed, the top may be heated and sealed the same as the bottom after the contents have been placed in the container.

For further protection, another cup-shaped member, 10, formed exactly like the cup-shaped members 7 and 8, with the exception that it is sufficiently larger in diameter to fit over the outside of the cylinder, may then be placed over the end holding the cup shaped member 7. Such an additional cover, 10, not only affords greater protection from contamination, but also provides the space 11, which serves to protect the top of the contents of the package from radiation, and into which space 11 may be placed directions for use of the contents and advertising material.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A cylindrical container comprising a blank of fibrous material, one end of which said blank is formed into a spear head, a transverse slot being provided in said blank to receive said spear head to form a circular wall or casing for said container, the remainder of said blank being impregnated with an impervious solidifying substance and disposed inside of said casing so as to contact therewith and adhere thereto by reason of the solidification of said substance.

2. A cylindrical container comprising a blank of fibrous material, one end of which said blank is formed into a spear head, a transverse slot being provided in said blank to receive said spear head to form a circular wall or casing for said container, the remainder of said blank being impregnated with wax and disposed inside of said casing so as to contact therewith and adhere thereto by reason of the solidification of said wax.

3. A cylindrical container comprising a casing formed of a blank of fibrous material, one end of which said blank is formed into a spear head, a transverse slot being provided in said blank to receive said spear head to form said casing, and a fibrous lining for said casing being impregnated with an impervious solidifying substance and disposed inside of said casing so as to contact therewith and adhere thereto by reason of the solidification of said substance.

4. A cylindrical container comprising a casing formed of a blank of fibrous material, one end of said blank is formed into a spear head, the edges of said blank being tapered from the broadest part thereof to the shoulders of said spear head so that said tapered edges will be disposed spirally upon the outside of the finished container, a transverse slot being provided in said blank to receive said spear head to form said casing, and a fibrous lining for said casing being impregnated with wax and disposed inside said casing so as to contact therewith and adhere thereto by reason of the solidification of said wax.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

CHARLES W. SHEVLIN.

Witnesses:
BENJ. T. ROODHOUSE,
M. A. MILORD.