

E. F. BEUGLER,
BARREL HOOP.
APPLICATION FILED MAY 29, 1915.

Patented Nov. 7, 1916.

1,203,688.

Fig 1.

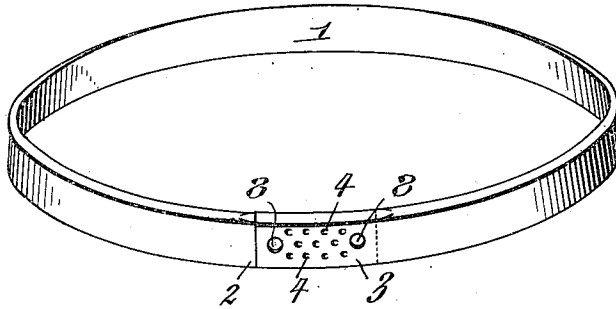


Fig 2.

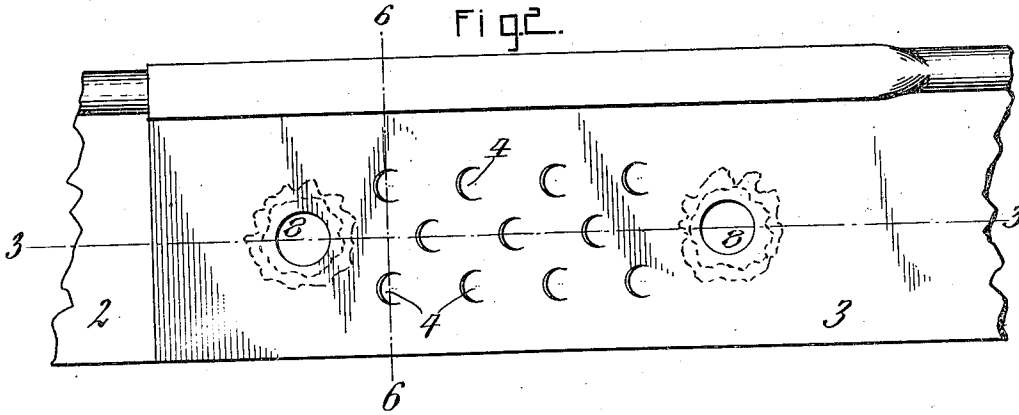


Fig 3.

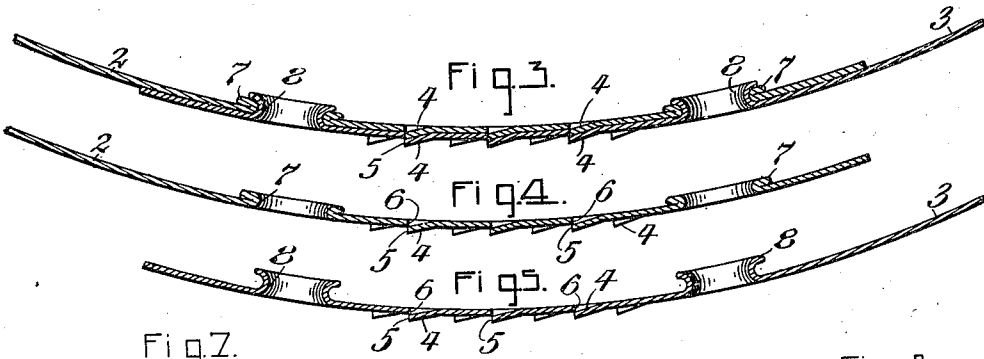


Fig 4.

Fig 5.

Fig 7.

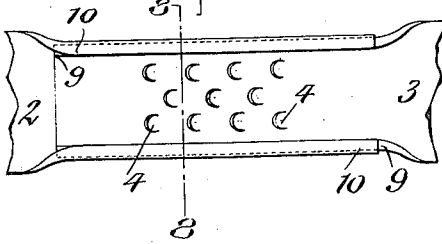


Fig 6.

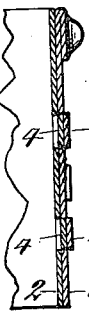
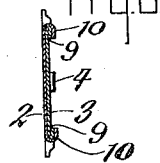


Fig 8.



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BARREL-HOOP.

1,203,688.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWIN F. BEUGLER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Barrel-Hoops, of which the following is a specification.

This invention relates to a barrel hoop which is made of sheet metal and has for its object to provide simple, efficient and inexpensive means for connecting the ends of the hoop without the use of separate rivets or the like so that the joint between these ends will not open or pull apart under the severest strains to which the same is liable to be subjected while being applied to a barrel or while being in use on the barrel.

In the accompanying drawings: Figure 1 is a perspective view of a sheet metal barrel hoop embodying one form of my invention. Fig. 2 is a fragmentary side elevation of the same, on an enlarged scale, showing the joint between the overlapping ends of the hoop. Fig. 3 is a longitudinal section taken in line 3-3, Fig. 2. Figs. 4 and 5 are fragmentary longitudinal sections of the detached end portions of the hoop. Fig. 6 is a transverse section taken in line 6-6, Fig. 2. Fig. 7 is a fragmentary side elevation of the overlapping ends of a hoop showing a modified construction of the same. Fig. 8 is a transverse section taken in line 8-8, Fig. 7.

Similar characters of reference indicate corresponding parts throughout the several views.

1 represents the body of the hoop which is made of a strip of suitable metal such as sheet steel and which has its ends 2, 3 overlapping one another lengthwise of the hoop. These overlapping ends are interlocked by my improved fastening or joint so that they are held against pulling lengthwise apart as well as being displaced laterally relatively to each other. The means for connecting these ends of the hoop so as to hold the same against pulling apart in the direction of their length comprises one or more lips, tongues, hooks or offset portions 4 which are formed in the ends portions of the hoop and are adapted to interlock with each other. Although the number of interlocking pairs of these lips may be varied to suit the size of the hoop and the strain to which the same is liable to be subjected the drawings show three rows of such pairs of lips arranged

parallel in the direction of the length of the hoop and the several pairs of lips staggered relatively to each other, as shown in Figs. 1 and 2. Each of the lips is stamped laterally out of the metal stock in one end of the hoop so that the lip is arranged lengthwise thereof and connected integrally at its inner or rear end or base with the body of the hoop while its outer or front end or head is arranged on one side of the body, thereby forming a forwardly facing shoulder 5 at the front end of the lip and a rearwardly facing shoulder 6 on the adjacent part of the body of the hoop, said front and rear shoulders formed by thus deflecting or offsetting the metal being arranged transversely in line, as shown in Figs. 3, 4 and 5. The front end of each lip is preferably offset from the body of the hoop a distance equal to the thickness of the hoop, as shown in Figs. 3, 4 and 5.

In the assembled or overlapping position of the ends of the hoop each lip of one hoop end engages with or lies with its outer side against the inner side of a lip on the other hoop end, so as to form a pair therewith, and when thus assembled the inner lip of each pair bears with its front end against the rearwardly facing shoulder of the outer hoop end which is arranged adjacent to the front end of the companion outer lip of the outer hoop end, as shown in Fig. 3. The two cooperating lips of both hoop ends therefore project lengthwise of the hoop in the same direction circumferentially of the hoop as a whole, but when considering these lips separately one of them faces with its front end away from the corresponding extremity of the hoop body while the companion lip of the other hoop end faces with its front end toward the corresponding extremity of the hoop body. An abrupt or square shoulder is provided on each hoop end which engages with a corresponding shoulder on the other hoop end which shoulders are perpendicular to the length of the hoop and thereby serve to form a positive and reliable interlock or joint between these hoop ends which securely hold the same against pulling apart in a direction lengthwise of the hoop. By employing a plurality of such interlocking pairs of lips, as shown in the drawings, a very strong and durable joint is produced between the hoop ends which is not liable to open up under the severest strains to which the same may be subjected. For conven-

ience of manufacture the deflection or off-
setting of the metal body or stock of the
hoop is preferably effected by a punch hav-
ing a semi-circular working edge which
5 causes the cooperating front shoulders of the
lips and the rear shoulders of the hoop body
to be of curved or semi-circular form, as
shown in Figs. 1, 2 and 7.

For the purpose of retaining the hoop
10 ends against lateral displacement relatively
to each other and confining the several pairs
of lips in operative relation, various means
may be provided for instance, as shown in
Figs. 1-5, this is effected by a plurality of
15 rivets which are formed integrally from
the stock or body of the metal hoop by
punching integral eyelets 7, 8 transversely
from the overlapping portions of the hoop,
so that an outer eyelet 7 is formed on one of
20 the hoop ends and an inner eyelet 8 on the
other hoop end, the inner eyelet passing
through the outer eyelet and the free ends
of both eyelets being upset against each
other and against the adjacent part of the
25 hoop, so that they are securely interlocked
and hold the hoop ends against transverse
separation.

Instead of employing integral eyelets for
this purpose the means shown in Figs. 7 and
30 8 may be employed. In the last mentioned
construction the upper and lower edges of
the overlapping end portions of the hoop
are provided with longitudinal flanges 9, 10
which are folded transversely of the hoop
35 over one another, thereby producing a
clencher joint between these hoop ends
which serve to prevent lateral displacement
of these hoop ends relatively to each other

and also by their frictional engagement
with each other aid in resisting any tend- 40
ency to pull apart the hoop ends in a direc-
tion lengthwise of the hoop.

The joint between the ends of the hoop is
preferably produced by overlapping these
ends and then forming the several pairs of 45
cooperating lips on the same by pressing the
metal of each pair of lips laterally simul-
taneously with a punch or forming tool,
thereby expediting the formation of this
joint and reducing the cost accordingly. 50

This means of joining the ends of the
hoop is extremely simple and inexpensive
in construction and avoids the necessity of
using separate rivets or other fastening de-
vices for this purpose, thereby materially 55
reducing the cost of the barrel on which the
same are employed.

I claim as my invention:

A barrel hoop constructed of a strip of
sheet metal having its ends overlapping and 60
united by means which comprise cooperating
lips projecting laterally from the ends
of said strip and each lip being struck from
the stock of said strip so that the rear end
of the lip is attached to the strip while its 65
front end is deflected from the side of the
lip and forms a forwardly facing edge on
the lip and a rearwardly facing edge on the
strip adjacent to the front end of the lip,
and said lips lying against each other with 70
the forwardly facing edge of the lip in one
of said strip ends engaging throughout its
width with the rearwardly facing edge of
the other strip end.

EDWIN F. BEUGLER.