A. R. WILLIS & C. D. MAHONEY.
BEATER ROLL FOR PAPER MILLS.
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Fig. 1.

Fig. 2.

Fig. 3.

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BEATER-ROLL FOR PAPER-MILLS.

1,001,599.


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To all whom it may concern:

Be it known that we, Archie R. Willis
and Charles D. Mahoney, citizens of the United States, residing at Elkhart, in the
5 county of Elkhart and State of Indiana,
have invented certain new and useful Improvements in Beater-Rolls for Paper-Mills,
of which the following is a specification.

This invention relates to beater rolls for
10 paper mills, and one of the principal objects of the same is to provide a comparatively
light and durable roll for the purpose referred to, in which the bars can be readily
renewed or removed from the roll whenever
15 required without the use of special tools.

Another object of the invention is to pro-
vide a beater roll comprising a series of in-
terior spider wheels, and a pair of end disks
20 having the bars secured to said spiders and
disks, by means of projecting pins and
wedge blocks.

These and other objects may be attained by
means of the construction illustrated in
25 the accompanying drawing, in which,
Figure 1 is a side elevation of a beater roll
made in accordance with our invention.
Fig. 2 is a sectional view on the line 2—2
of Fig. 1 looking in the direction indicated
30 by the arrow. Fig. 3 is an end view of the
roll.

Referring to the drawing the numeral 1
designates the hub of a spider wheel and 2
are the spokes connected to said hub and
35 provided with a rim 3. Extending outward
from the rim is a series of lugs 4, each
provided with a socket 5. As shown in Fig.
1 there are three of the spider wheels but it
will be understood that any suitable number
40 may be used. At the end of the roll the
heads are unbroken forming disks 6, each
provided with a hub 7, through which the shaft
projects. The end heads 6 are also provided
with lugs 8 spaced apart around the periph-
45 eries thereof, said lugs being provided with
sockets 9, as shown more clearly in Fig. 3.

The beater bars 10 extend from end to end
of the roll and are bent in the center, as
shown in Fig. 1. These bars are each pro-
vided with pins 11 which are adapted to fit
50 in the sockets 9 and 5 in the lugs 8 and 4.
For holding the bars in place and for pre-
venting the pins 11 from being withdrawn
from the sockets 5 and 9, wedge blocks 12
are inserted between the lugs and the next
55 adjacent bar, as shown more clearly in Figs.
2 and 3. The wedge blocks 12 serve to hold
the pins into the sockets in the lugs, thus
securely holding the bars in place to permit
them to be readily disconnected from the
roll for repairs or renewals.

From the foregoing it will be obvious that
a beater roll made in accordance with our
invention; is comparatively simple in con-
struction; can be manufactured at low cost;
65 is strong durable and efficient for its pur-
pose; can be quickly assembled; and can be
readily repaired whenever injured.

We claim:
The herein described beater roll for paper
mills comprising a series of spiders having
60 peripheral lugs cast thereon, said lugs each
being provided with a socket, heads for said
beater roll also provided with socketed lugs
on the peripheries thereof, beater bars con-
65 nected to said lugs by means of pins extend-
ing into the sockets of said lugs, said pins
being formed integrally with the bars, and
wedge blocks for holding the pins in the
sockets of said lugs, said bars being bent
centrally as shown and described.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

ARCHIE RAY WILLIS.
CHARLES D. MAHONEY.

Witnesses:
Clem Luntman,
Arthur Wilson.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."