(No Model.)

S. ELLIOTT.

DRIVE CHAIN.

No. 447,813. Patented Mar. 10, 1891.

Fig: 1

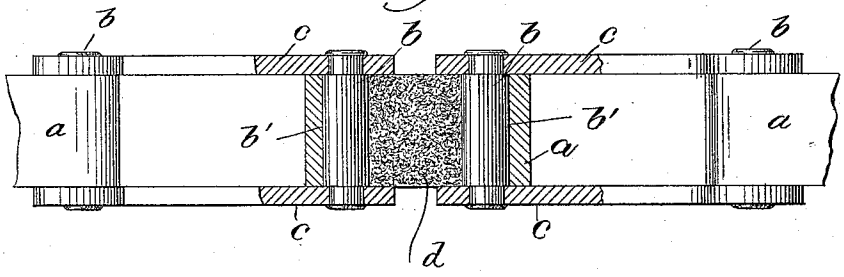
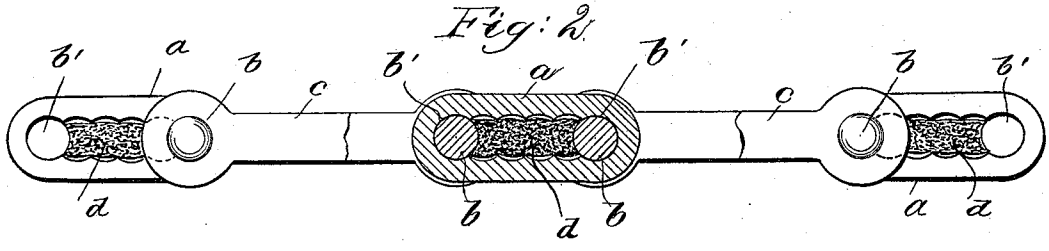


Fig: 2



Witnesses.
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UNITED STATES PATENT OFFICE.

STERLING ELLIOTT, OF NEWTON, MASSACHUSETTS.

DRIVE-CHAIN.

SPECIFICATION forming part of Letters Patent No. 447,813, dated March 10, 1891.

Application filed June 12, 1889. Serial No. 314,039. (No model.)

To all whom it may concern:

Be it known that I, STERLING ELLIOTT, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Drive-Chains, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to construct a sprocket-chain especially adapted as a drive-chain for use in connection with sprocket-wheels, which may be cheaply made, very durable, and practically self-oiling.

In accordance with this invention the chain is composed of alternate oiling and connecting links, the oiling-links each consisting of a metallic block drilled transversely and centrally or otherwise formed with a transverse elongated passage through it, open at each edge or side, and the connecting-links each consisting of two bars or plates arranged one at each side of the oiling-links. Two pins pass through pin-receiving sockets in the transverse opening or passage through each oiling-link, one at each end, said pins projecting beyond the edge or side of said link and passing through the connecting-links or otherwise formed to engage therewith. The transverse opening or passage through each oiling-link is packed with absorbent materital, as felt, thoroughly saturated with oil, said material coming in direct contact with the pins to lubricate the same. The connecting-links extend slightly beyond the pins and so assist in retaining the absorbent material in the oiling-links and in excluding dust from the pins.

Figure 1 shows in plan view and partial section a chain embodying this invention, and Fig. 2 a side view and partial section of the chain embodying this invention.

The oiling-links, arranged alternately with relation to the connecting-links; each consists of a metallic block *a*, drilled or otherwise manipulated to form a transverse elongated opening or passage through it from side to side. Two pins *b b* are placed in sockets *b'*, opening laterally into the elongated transverse passage or opening through the oiling-links *a*, one at each end, said pins being herein shown as projecting beyond the edge or side of the links *a* and passing through plates *c*, which plates constitute the connecting-links and are arranged alternately with relation to the oiling-links. The links or plates *c*, extending beyond the pins, serve to assist in keeping the said material in place as well as to exclude dust from the pins. The links or plates *c* overlap the openings in the oiling-links and also the absorbent material *d*, and serve to assist in keeping the said material in place as well as to exclude dust from the pins. The ends of the pins *b* are slightly reduced in diameter and upset to hold the plates thereon. The transverse opening or passage through the oiling-links *a* is packed with absorbent material *d*, as felt or other suitable material, said material bearing in direct contact with the pins *b*. The links *a* are most readily made from solid blocks of metal having the openings formed of a series of cylindrical holes opening into one another in the direction of their length, and thereby affording anchorage for the lubricant. The material *d* is thoroughly saturated with oil, and thereby serves to lubricate the pins. The opening through the oiling-links being accessible at each side, the absorbent material may be supplied with oil at any time desired; yet in practice when the material is once thoroughly saturated it need not be attended to for a long period of time. The absorbent material may be renewed at any time without disconnecting any of the parts of the chain by reason of the open sides of the link. A chain formed of oiling-links constructed in this manner is very durable, the links may be cheaply made and readily repacked when desired, and, in fact, there is little or no liability of the chain getting out of order.

I claim—

1. A drive-chain having the oiling-links *a*, each made of a single piece of metal which is pierced transversely to form an opening, in the opposite ends of which the pins *b* are arranged, with the lubricant absorbent *d* between said pins, the opening in said links having open sides for access to the absorbent, combined with connecting-links *c*, secured to the pins at the sides of the oiling-links, substantially as described.

2. A drive-chain having oiling-links *a*, each made of a single piece having a central transverse passage open at each side of the link and formed of a series of cylindrical holes

opening into one another in the direction of their length, their intersecting surfaces affording anchorage for a lubricant absorbent arranged in said opening, and having terminal sockets *b'* for the pins, with the intermediate portion supplied with a lubricant absorbent, substantially as described.

3. A drive-chain having oiling-links each made of a single piece of metal recessed through and through transversely and containing porous or absorbent material to receive and hold oil to lubricate the links, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

STERLING ELLIOTT.

Witnesses:
BERNICE J. NOYES,
B. DEWAR.