(No Model.)

R. M. LA TOUCHE.

DEVICE FOR CATCHING OIL FROM CRANK PIN JOURNALS OF CONNECTING RODS.

No. 504,391. Patented Sept. 5, 1893.

Fig. 1.

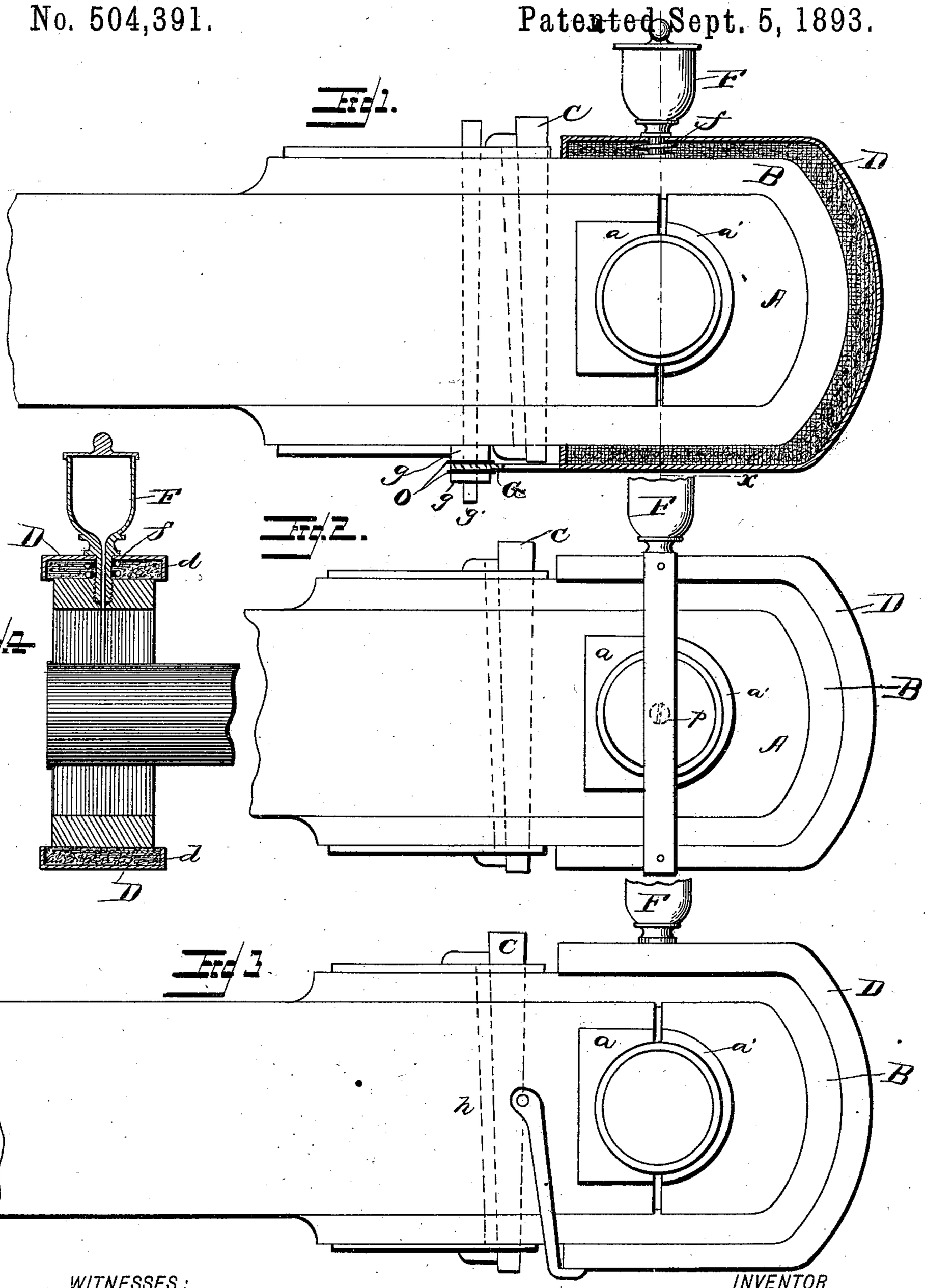

Fig. 2.

Fig. 3.

WITNESSES:

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DEVICE FOR CATCHING OIL FROM CRANK-PIN JOURNALS OF CONNECTING-RODS.

SPECIFICATION forming part of Letters Patent No. 504,391, dated September 5, 1893.

Application filed March 22, 1892. Serial No. 425,896. (No model.)

To all whom it may concern:

Be it known that I, RENO M. LA TOUCHE, of Moscow, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Catching Oil from Crank-Pin Journals of Connecting-Rods; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention has for its object to provide a means for preventing the dripping or flying of oil under the influence of centrifugal force, from the crank pin journals of connecting rods, and with this end in view, the invention consists in certain novel details of construction and combinations and arrangements of parts to be now described and pointed out particularly in the appended claims.

In the drawings: Figure 1 is a side elevation of the crank pin end of a connecting rod with the receptacle or oil catching device in section. Figs. 2 and 3 are similar views with the oil receptacle in elevation showing different ways of supporting the bottom of the receptacle. Fig. 4 is a transverse section on the line *x*—*x*, Fig. 1.

Like letters of reference in the several figures indicate the same parts.

The letter A indicates the end of the connecting rod which may be of any ordinary or preferred construction, that shown, being provided with the two half boxes *a a'* forming the bearing for the crank pin and the usual strap B surrounding the end of the rod for clamping the half bearings. The strap is held in place by the usual taper pin or key C secured by any approved means.

In carrying the invention into practice it has been my aim to surround the end of the connecting rod with a receptacle in such manner as that all oil working out of the crank-pin bearing and dripping or flying off under the influence of centrifugal force in any direction, up, down or forward, shall be caught no matter what the speed of the engine, and that without employing a cumbersome device calculated to spoil the looks of the machinery or require more room for operation than is usually given the crank and rod themselves.

To accomplish this, and provide a device equally applicable to high and low speed engines, I provide a receptacle D conforming to the shape of the end of the connecting rod, but slightly larger, and extending a short distance in rear of the crank pin journal. In the preferred form, this receptacle is formed of sheet metal and incloses the top, end and bottom of the connecting rod, with its side walls *d* extending a short distance beyond the plane of the sides of the said rod to catch the oil flying therefrom. The receptacle fits close to the end of the rod preserving its symmetrical appearance and it is obvious that it may be secured in place by many simple mechanical devices. In the preferred form, however, the oil cup F passing through it at the top holds it at this point, a coil spring *f* or washers or equivalent being interposed to hold it the proper distance from the rod. At the bottom, Fig. 1, a strap or arm G extends out from the bottom of the receptacle and is clamped between the lock nuts *g*, *g*, on the key *g'* serving to hold the device in proper relative position at the bottom. When the lock nuts are not employed, the strap G, or straps, if one is desired on each side, may be fastened to the side of the rod by set screws *h* Fig. 3, which screws also serve to lock the pin in place. In lieu of both these arrangements, the strap may be passed from the top to the bottom of the receptacle as shown in Fig. 2 where it passes across the end of the crank pin and may be held by a set screw *p* as shown in dotted lines. The space between the rod and receptacle is preferably filled or packed with an absorbent material for the oil which catches and holds the oil, and if there be any surplus, conducts it to the bottom of the receptacle where it is retained and may be withdrawn at pleasure.

Some advantage is gained in supporting the receptacle by means of a spring, as bending of it is thereby prevented, as is also breakage due to the bending incident to vibration, the latter being further guarded against by inserting washers O of elastic substance between the strap and nuts or screws holding the same in place.

The device is cheap, simple, easily applied to any engine now in use and while it is efficient in catching and retaining the oil thrown

from the crank, still it does not materially increase the size of the end of the rod nor detract from the usual trim mechanical appearance of the parts.

While I have shown and described the device as applied to one end of a connecting rod of particular construction, it is obvious that it may be applied to either end and made to fit any construction of end without departing from the invention in the least.

Having thus described my invention, what I claim as new is—

1. The combination with the connecting rod having the crank bearing in its end, of the oil receptacle lying in proximity thereto around the top end and bottom and extending beyond the planes of its sides, and the absorbent material packed between the rod and receptacle; substantially as described.

2. The combination with the connecting rod having the crank bearing in its end, of the oil receptacle lying in proximity thereto around the top end and bottom and extending beyond the planes of its sides and the spring interposed between the top of the receptacle and rod; substantially as described.

RENO M. LA TOUCHE.

Witnesses:
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