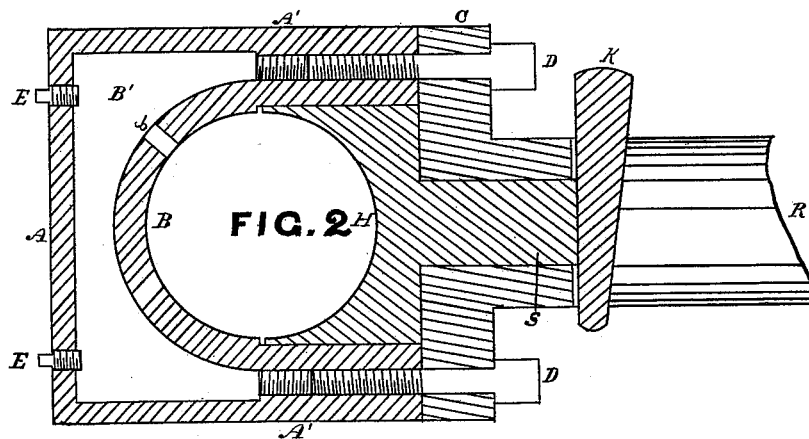
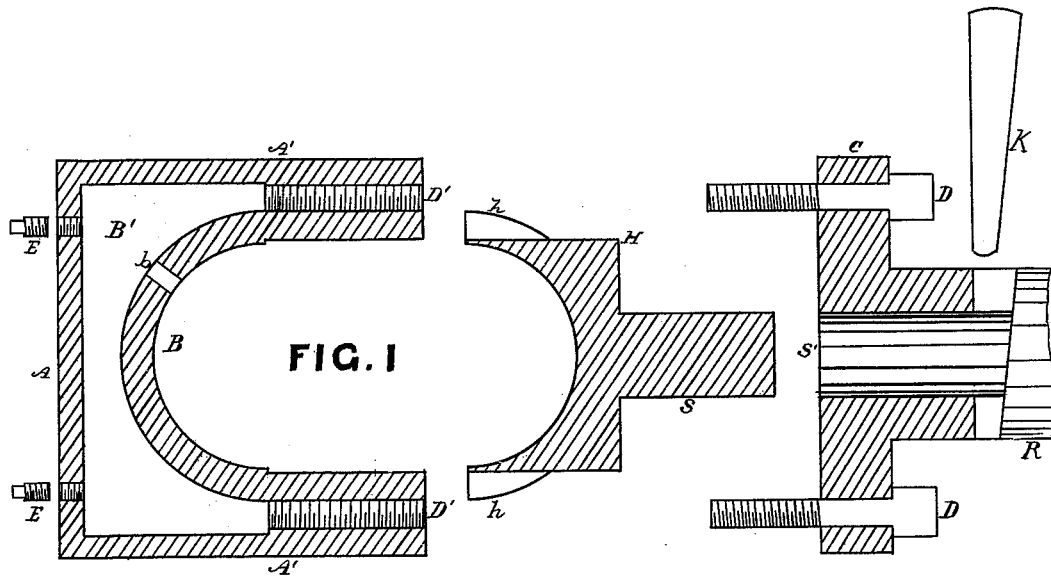


L. G. SKINNER.

Connecting-Rod for Steam-Engines.

No. 220,500.

Patented Oct. 14, 1879.



WITNESSES

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# UNITED STATES PATENT OFFICE.

LE GRAND SKINNER, OF ERIE, PENNSYLVANIA.

## IMPROVEMENT IN CONNECTING-RODS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **220,500**, dated October 14, 1879; application filed May 15, 1879.

*To all whom it may concern:*

Be it known that I, LE GRAND SKINNER, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Connecting-Rod for Steam-Engines; and I do hereby declare the following to be a full, clear, and exact description of the invention.

My invention relates to the construction of connecting-rods for steam-engines.

My invention relates more particularly to the construction of the wrist or crank-box of the connecting-rod.

The nature and purpose of my invention will fully appear in the following description and claims.

My device is illustrated in the accompanying drawings, as follows:

Figure 1 is a vertical longitudinal section of the crank-box and part of the rod, and shows the separate parts detached from each other. Fig. 2 is a like section of the same parts put together, as when in use.

The parts of the device as shown are as follows: R is the body of the rod, and has a stub end, C, and an opening or cavity, S', which reaches into a transverse key-opening. The stub C is provided with openings for screw-bolts D D. A is the forward half-box. This has projections or prongs A', which reach over the back half-box, and are attached to the stub C by the screw-bolts D D, as is plainly shown in Fig. 2. H is the back half-box. This is provided with a stem, S, which reaches up into the opening S' in the rod-body. This stem is shown as part of the half-box; but it may be simply a follower. K is a key, which fits in the transverse opening through the rod, and by it the sliding half-box H can be set up or adjusted to take up the wear.

Any form of adjusting device may be used to operate up the end of the stem S; but a key is the simplest. The key can be kept in place by a set-screw.

The part A is made hollow back of the box-face B. The chamber B' thus formed is an oil-chamber, for containing oil and wicking. This chamber has an opening, b, for the oil to

find its way onto the wrist-pin of the crank. This chamber also has openings E E, which are closed with screw-plugs. The upper of these openings is for filling the chamber with oil, and the lower one is of use for removing sediment, when desired.

I believe I am the first to construct a connecting-rod head with a movable half-box provided with a stem or follower which reaches into a cavity or opening in the rod, and thus allows the said box to be adjusted by a key, substantially as shown and described.

I also believe I am the first to construct the head of a connecting-rod of essentially three parts—viz., A, H, and C—and connect the same together by screw-bolts D passing through the part C into the part A, and leaving the part H free to move when acted upon by an adjusting device, substantially as shown and described.

I also believe I am the first to construct the forward part of the head A with a chamber, B', for containing oil. Therefore

What I claim as new is—

1. The combination, within a connecting-rod, of a rod-body, a head half-box attached to said rod-body, and a movable half-box having a stem or follower reaching into an opening in the rod-body, and an adjusting device within said opening, which operates upon said stem or follower, substantially as and for the purposes set forth.

2. The combination, within a connecting-rod, of a rod-body, R, having a stub, C, and an opening, S', a head half-box, A B, connected to said stub by bolts, and inclosing between its prongs a movable half-box, H, which has a stem or follower, S, reaching into the opening S', an adjusting device operating upon said stem or follower within said opening, substantially as and for the purposes set forth.

In testimony whereof I, the said LE GRAND SKINNER, have hereunto set my hand.

LE GRAND SKINNER.

Witnesses:

JNO. K. HALLOCK,  
E. J. O'CONNOR.