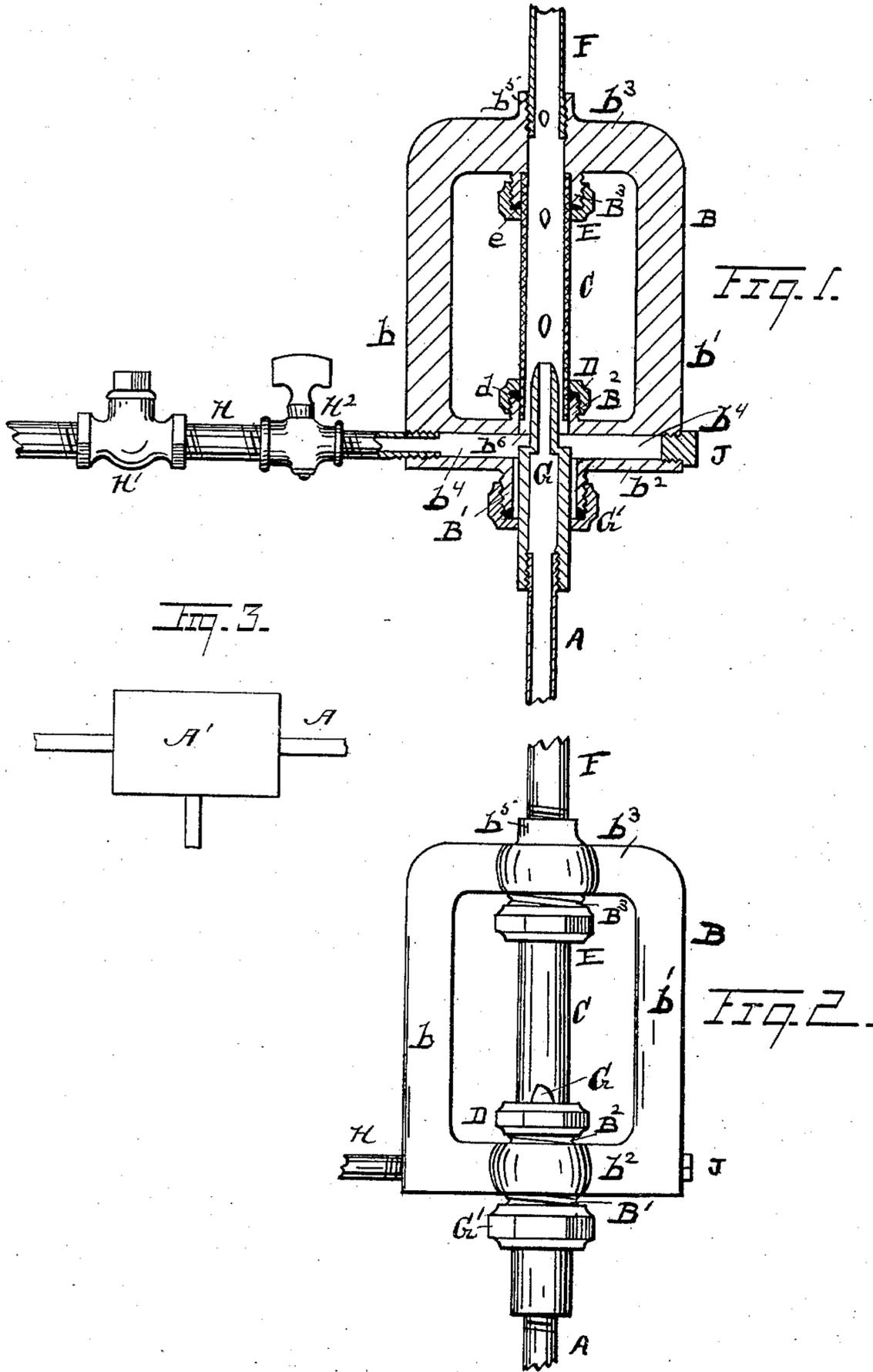


(No Model.)

E. HAYCOX.
SIGHT FEED CONNECTION FOR LUBRICATORS.

No. 466,785.

Patented Jan. 12, 1892.



Witnesses
John Schuman.
John F. Miller.

Inventor
Edward Haycox
By his Attorney
Newell S. Wright.

UNITED STATES PATENT OFFICE.

EDWARD HAYCOX, OF DETROIT, MICHIGAN.

SIGHT-FEED CONNECTION FOR LUBRICATORS.

SPECIFICATION forming part of Letters Patent No. 466,785, dated January 12, 1892.

Application filed July 17, 1891. Serial No. 399,327. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HAYCOX, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Sight-Feed Connections for Oil-Pumps; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in the construction of a sight-feed connection for oil-pumps, and is designed more especially for use in connection with an oil-pump on marine or other engines wherever it is found adapted.

My invention consists of the devices and appliances hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section illustrating my invention, and Fig. 2 is a side elevation thereof. Fig. 3 is a view in outline of an oil-pump.

I carry out my invention as follows:

A represents the pipe leading from an oil-pump A', through which oil is fed from the pump to the cylinders of the engine.

B denotes a metallic frame supporting the sight-feed glass C, preferably constructed with two uprights b b' , connected by a cross-arm b^2 at the base and a cross-arm b^3 at their upper ends. The two ends of the cross-arm b^2 at the base are channeled, as shown at b^4 , and intermediate said extremities said arm is constructed with a threaded shoulder B' extending downward therefrom. An additional threaded shoulder B² is also provided, located above the shoulder B' to provide for the lower sight-feed-glass connection.

D is a nut engaging the shoulder B² to hold the glass in place, said nut being constructed to form a stuffing-box d . The upper cross-arm b^3 is also provided with a threaded shoulder B³ to provide for the upper sight-feed-glass connection. E is a nut engaging said latter shoulder to hold the glass in place,

said nut being provided also with the usual stuffing-box e . The cross-arm b^3 is provided with a threaded nipple b^5 for connecting the sight-feed-glass supporting-frame B with the pipe F leading from the sight-feed chamber to the cylinders to be lubricated.

Extending within the lower shoulder B' and with the base of the sight-feed glass is a nozzle G for directing the oil to the interior of the glass. This nozzle is connected with the frame by means of a nut G' engaged upon the threaded shoulders B'. At the lower end the nozzle is connected with the oil-pipe A.

H denotes a steam-pipe entering one end of the lower cross-arm b^2 and communicating through the channel b^4 with the sight-feed chamber within the sight-feed glass. The lower cross-arm is chambered about the nozzle, as shown at b^6 , to allow the steam to pass into the sight-feed chamber. It will be seen that the sight-feed chamber thus becomes also a condensing-chamber within which the steam condenses, supplying water of condensation to float the drops of oil.

The steam-pipe is provided with any ordinary check-valve, as indicated in elevation at H', and also with a regulating-cock H² to control the supply of steam admitted to the sight-feed chamber. The check-valve will effectually prevent any loss of oil from back-pressure.

Should the oil-pump stop working or fail to supply oil to the cylinders, the sight-feed will enable the engineer to quickly detect the fact.

The frame may, if desired, be constructed with a single upright arm supporting the upper and lower sight-feed connections; but to secure greater strength and firmness I prefer to employ two. These arms should be of sufficient strength to prevent the steam-pressure from bending the upper cross-arm, which would result in the breakage of the glass. This particular construction, however, is calculated and adapted to effectually prevent such breakage.

By channeling the lower cross-arm at both extremities it is evident that the connection of the steam-pipe therewith may be made at either end, the other end being plugged up, as shown at J. By this construction the connection of the steam-pipe may be changed

should the threads be stripped at one end of said channel without having to substitute a new frame.

What I claim as my invention is—

- 5 1. In combination, an oil-pump, oil-pipes A and F, a sight-feed supporting-frame connected at its extremities with said pipes, a sight-feed chamber, sight-feed-glass connections at the extremities of said frame, a steam-
 10 pipe communicating with said chamber, said chamber communicating with said oil-pipes, and said steam-pipe provided with a cock and a check-valve, substantially as described.
- 15 2. In combination with oil-pipes A and F, a sight-feed supporting-frame connected at its extremities with said pipes, a sight-feed chamber, sight-feed-glass connections at the extremities of said frame, and a steam-pipe communicating with said chamber communicat-
 20 ing with said pipes, said frame consisting of

two upright arms and upper and lower cross-arms connected therewith, the lower cross-arm constructed with a channel at its extremities communicating with the sight-feed chamber and engaged at one extremity with said steam-pipe, the opposite extremity being closed, substantially as described.

3. The combination, with an oil-pump, of oil-pipes A and F to lead oil from said oil-pump to the parts to be lubricated, a sight-feed chamber interposed in said pipes and communicating therewith, and a steam-pipe communicating with said chamber, substantially as described.

In testimony whereof I sign this specification in presence of two witnesses.

EDWARD HAYCOX.

Witnesses:

N. S. WRIGHT,
 JOHN F. MILLER.