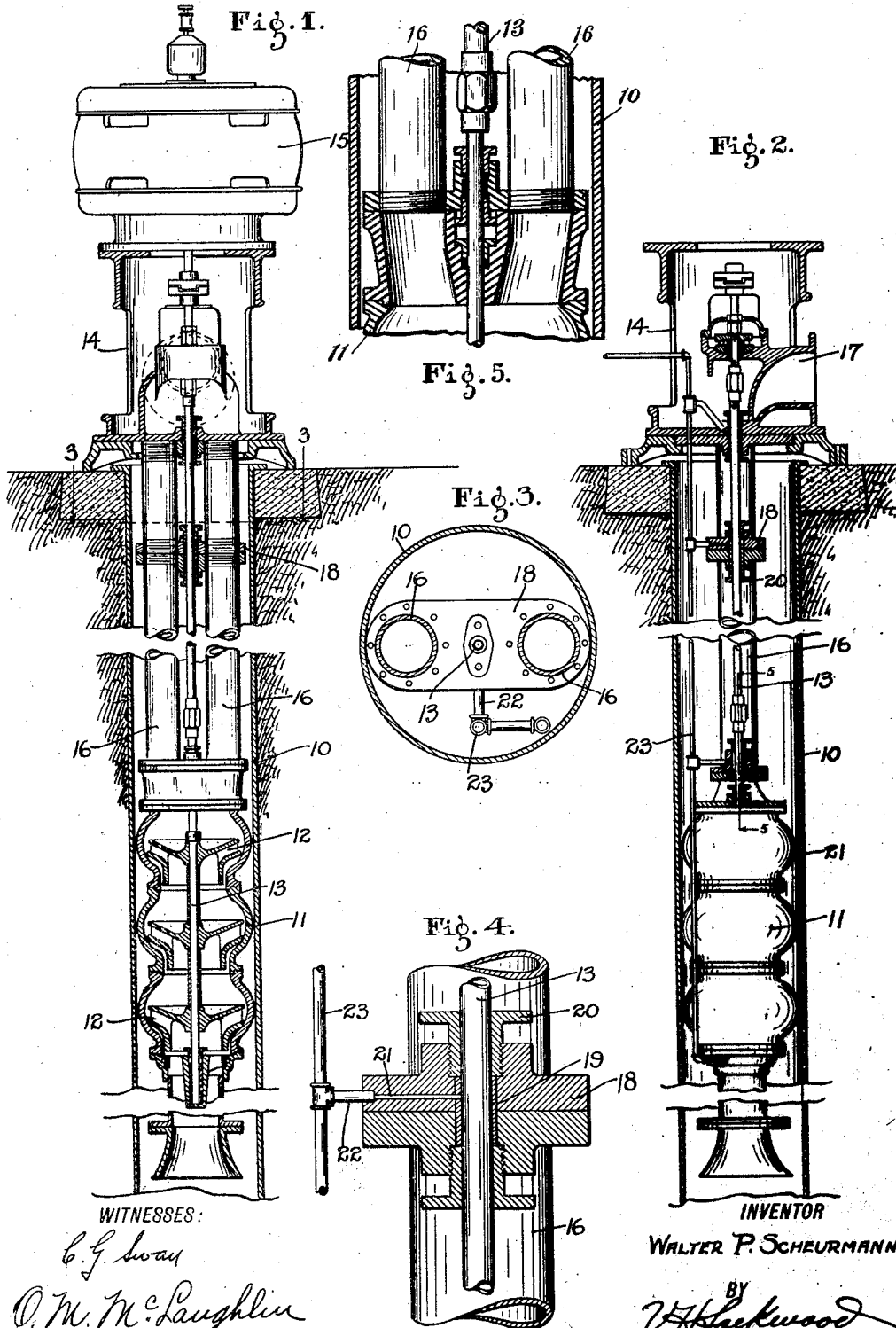


W. P. SCHEURMANN.  
 DEEP WELL PUMP.  
 APPLICATION FILED FEB. 16, 1914.

1,141,010.

Patented May 25, 1915.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WALTER P. SCHEUBMANN, OF ANDERSON, INDIANA, ASSIGNOR TO THE HILL-TRIPP PUMP COMPANY, OF ANDERSON, INDIANA, A CORPORATION.

## DEEP-WELL PUMP.

1,141,010.

Specification of Letters Patent.

Patented May 25, 1915.

Application filed February 16, 1914. Serial No. 818,997.

*To all whom it may concern:*

Be it known that I, WALTER P. SCHEUBMANN, a citizen of Switzerland, and a resident of Anderson, county of Madison, and State of Indiana, have invented certain new and useful Deep-Well Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is improvement in the construction and operation of double discharge column pumps for deep wells. In this type of pump centrifugal pumps are mounted in the lower part of the well for elevating the water and are actuated by a shaft driven by a motor at the upper end of the well on the surface of the ground.

One feature of the invention consists in the provision of a plurality of discharge columns or pipes through which the water reaches the surface and with the turbine shaft located outside of said pipes so as to reduce considerably the frictional resistance to the discharge of the water as compared with the usual method of running the shaft down through the center of a single discharge column or pipe.

Another feature of the invention consists of two discharge columns or pipes with the pump actuating shaft located between them with the bearings of the shaft placed in the pipe flanges or castings connected in some manner to the pipe flanges. Also the bearings are provided with a stuffing box on each end thereof and means for supplying lubricant to the whole series of bearings under pressure.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a central vertical section through a well showing the pump in elevation with intermediate parts broken away. Fig. 2 is a central vertical section through a portion of the pump with the motor at the upper end omitted and with the central portion of parts broken away. Fig. 3 is a section on the line 3-3 of Fig. 1. Fig. 4 is a central vertical section through one of the shaft bearings and associated parts. Fig. 5 is a central vertical

section on the line 5-5 of Fig. 2, on an enlarged scale.

In the drawings, there is shown a well 10 in the earth, said well being of a metal type or the like. In the lower part of the well there are a number of pump casings 11 in which centrifugal pumps 12 are located and secured on a shaft 13 for driving it. This shaft is located centrally in the well and extends above the surface of the ground through a housing 14 at the top to a motor 15 on the upper end of said housing. The water elevated by said pumps is discharged through a pair of pipes 16 located on opposite sides of the shaft 13 and extending up to the housing 14 and discharging the water through an outlet 17.

The discharge pipes 16 are formed in section with the ends thereof reversely threaded so as to screw into horizontal pipe flanges 18, see Fig. 3, and the bearings 19 for the shaft 13 are located in the pipe flanges. There is a stuffing box 20 at the upper end, and another one at the lower end of each bearing. The upper flange 18 of each adjacent pair of pipe flanges, has an oil conduit 21 through it, oiling from a short tube 22 projecting horizontally from a vertical lubricating tube 23. Lubricating oil is introduced into the tube 23 under pressure and it passes therefrom to all of the bearings of the shaft and without in any wise interfering with the discharge pipe 16.

The invention claimed is:

1. A deep well pump including a plurality of discharge pipes, means below the discharge pipes for elevating the water through said discharge pipes, a shaft extending down into the well adjacent said discharge pipes for driving the water elevating means, flange plates on said discharge pipes at intervals, and bearings for said shaft located in said flanges.

2. A deep well pump including a plurality of discharge pipes formed in sections, flanges at adjacent ends of said pipe sections for securing them together, means below the discharge pipes for elevating the water through said pipes, a shaft extending down into the well for driving said water elevating means and located between said pipes and extending through said pipe flanges, and bearings in said pipe flanges for said shaft.

3. A deep well pump including a plurality of discharge pipes, transverse flanges for securing said pipes in place, means located below said discharge pipes for elevating the  
5 water through them, a shaft extending down into the well between said pipes and through said pipe flanges for driving the water elevating means, bearings for said shaft in said flanges, stuffing boxes secured  
10 to said flanges for preventing lubricating fluid escaping from the shaft bearings, and means for supplying lubricating fluid to said shaft bearings.

4. A deep well pump including a plurality of discharge pipes, transverse flanges  
15 for securing said pipes in place, means located below said discharge pipes for elevat-

ing the water through them, a shaft extending down into the well between said pipes and through said pipe flanges for driving the water elevating means, bearings for said shaft in said flanges, stuffing boxes secured to said flanges for preventing lubricating fluid escaping from the shaft bearings, a lubricating tube extending into the well, and  
25 conduits leading therefrom to the various shaft bearings.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

WALTER P. SCHEURMANN.

Witnesses:

MARGARET DONOVAN,  
ETHEL L. HOLMES.