

The Fitz Water Wheel Company

MANUFACTURERS OF

I-X-L STEEL OVERSHOOT WATER WHEELS

MILL GEARING, PULLEYS, STEEL FLUMES AND FOREBAYS
GRAIN DRIERS AND BURNHAM TURBINES

JOHN FITZ
MANAGER

Hanover, Pa., U.S.A.

January 10, 1922.

Mr. O. E. Collins,
Anselma, Pennsylvania.

Dear Sir:

Your favor of the 9th inst. is at hand and carefully noted. We have already gotten out the castings for the external segment gear and have done a large part of the work. We would not like to lose this work, unless absolutely necessary, but if you must have an internal gear, we will make the change for you.

The main objection to an internal gear, aside from the fact that so large a part of the work has already been done on the external outfit is the fact that it will not give you as much speed. The largest internal segment gear that you can use on your water wheel to advantage would be 12 ft. pitch diameter. This is due to the fact that the backing and lugs or ears to attach the segments must be on the outside of the circle and the 12 ft. internal segment gear is, therefore, a little larger on the outside than the 14 ft. external gear and weighs a trifle more too. We can furnish this 12 ft. internal segment at the same price as the external gear, since the weight is about the same, but the highest speed that can be obtained on the jack shaft will be 58 to 60 R. P. M.

From what we can learn of the situation after a careful study of your sketch, it would seem to us that the external gear ought to be just as satisfactory in every respect. Your attrition mill can be driven from a line shaft running in either direction and you could readily change the position of your bevel gears that drive the saw mill connection, so as to run that shaft in the direction desired. The fact that the pulling side of your main drive belt will be on the top with an external gear will be of no importance in this case, as you would have to use a tightener pulley anyhow on account of the great difference in ratio between the two pulleys. A tightener operated from the bottom will be easier to adjust and to line up and it will give you better service than one operated from the top. We will hold up the work on the segments for a few days until we can hear from you further regarding your wishes in this matter. We would appreciate your earliest possible advise, however, so that we can finish the job, one way or the other now that we have started it.

JSF:ML

Very truly yours,

FITZ WATER WHEEL COMPANY,

Per 