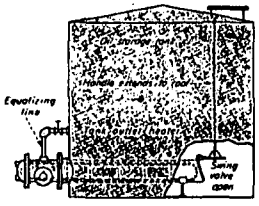
ARGUMENTS

Here's the place to unload your gripes to editors, manufacturers and fellow engineers



Removing Tube Bundles

WHILE E H ROPER'S article, "Removing Coils from Full Oil Tank" (p 125, Nov POWER), explains a practical way of shutting off oil supply to a tank-outlet heater, the method is very expensive. Large-diameter gate valves are costly. In some cases cost of valve may exceed that of heater.

Simple-operating swing valve shuts off oil flow if tube bundle has to be removed. A machined surface on the heater shell and a flapper valve hinged at top-back end of shell do the work. Flapper has neoprene insert gasket that sets on the machined surface, oil pressure inside tank causes positive sealing. Handle extends to roof. Oil-equalizing line between storage tank and heater shell allows easy reopening of swing valve by equalizing pressures. Valves can be furnished as standard equipment.

H S LEWIS *Newark, N.J.*
Manning & Lewis Engineering Co

Is Dead Stop Possible?

MARMADUKE'S STORY about a Liberty ship's engine stopping dead (p 142, Nov POWER) is just a sea story. With his safety valves blowing to atmosphere, he must have had about 235 psi both in his drums and at his throttle. The wheel, having just left the water, must have been turning at 72 rpm or more. Momentum of wheel, bull gear, crank webs and all the other heavy parts, plus about 25 in. Hg in the condenser and 235 psi at the throttle, would certainly have kept the engine running.

If some tremendous force had brought it to a sudden dead stop, Marmaduke would have had to break out the oars and row to port, because he would not have had a propulsion plant left.

J J GEIST *Sheepshead Bay, N.Y.*

EDITOR'S NOTE: *But engine did stop, regardless—just as Marmy said.*

About 'Namby-Pamby Education'

I CAN EXPRESS an opinion on your editorial, "Namby-Pamby Education" (p 67, Nov POWER), for these reasons: (1) I came up both ways. In 1906, at 16, I was taken out of high school and put to work. Four years later I went back, finished both high school and college. (2) For a year I taught vocational classes in high school, and observed the attitude of one type of student.

I started working in the days of catch-em-young, treat-em-rough, tell-em-nothing. The old practical-experience men looked on college graduates as suspicious characters. Anything learned out of a book was no learning at all.

These men said: "Authorities require four years of high-school subjects to enter college. None of the subjects has any practical value, but they are required. So unless you are going to college, high school is wasted. It is better to go to work as soon as you finish grammar school."

But I know from experience that this reasoning is wrong. In any branch of engineering or science, high-school subjects are absolutely essential. Even if I had known I had to work for several years between high school and college I would have taken a college-preparatory course.

This is my idea of a good course:

(1) *Mathematics:* algebra, plane, solid and spherical geometry, and plane and spherical trigonometry. If possible, also coordinate geometry, elementary calculus or descriptive geometry.

(2) English: Four years, with as much oral and written composition, public speaking, and debating as possible.

(3) History: Four years, including ancient, medieval, modern, English, and U.S.; also U.S. and your own state constitutions, and your city charter.

(4) Science: physics, chemistry and physical geography, possibly biology.

(5). Latin: two years or more to give you a better understanding of English and of scientific terms.

(6) Mechanical drawing: one year with particular attention to care of instruments, lettering and ability to do neat pencil and ink work.

(7) Freehand drawing: one year to develop a sense of proportion.

I was taught that a boy's parents owe to considerable effort to send him to school. So it is his duty to make the most of his opportunities. If he fails in this he should be taken out of school and put on his own.

Since adoption of compulsory education until 18, or work permits at 16, the type of student is kept in school for whom education beyond mere reading and writing has doubtful value. Numerous boys in high school say, "Just using up time until I am 16 and can get a work permit. What's the use of school anyway? I can make as much money heating rivets in a shipyard as a school teacher earns after five years of study in college."

Another type believes he can take it easy, have a good time, then make a last-semester spurt to finish at the top. Other students apparently do poorly in the beginning, but hard work and concentration finally show results.

Education should emphasize fundamentals. Teach a student what he is studying and why, show him it is to his interest to make the most of his opportunities. I have known men studying elementary arithmetic in night school to say, "How foolish I was not to learn this earlier. Why didn't my parents and teachers make it clear, instead of letting me grow up with wrong attitudes on education?"

H T LIVINGSTON *Los Angeles, Calif.*

Likes Proverbs

MAY I COMPLIMENT YOU on the leaflet entitled, "New Proverbs for Young Engineers"? These proverbs constitute information that all men wish to have, but they don't know where to find it. Let me commend you on the foresight and ingenuity you have shown in compiling this most interesting leaflet.

W C HARGRAVES *St Louis, Mo.*

EDITOR'S NOTE: *Proverbs referred to were written by Phil Swain and published in* POWER *some years ago. Many thousands have been distributed. If you would like a copy let us know. Leaflet is free while supply lasts.*