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## Cod Fishing in Alaska.

A correspondent of the *Alaska Herald*, published at San Francisco, writes from the Shumagin Islands the following particulars. The Shumagins are a group of small islands situated near the 55th parallel, half way out on the peninsula of Alaska. They are among the possessions ceded to the United States by Russia.

There has been a great deal of rough weather along the Shumagin Islands during the summer. The strong south and southeasterly winds are the most severe here, and often prevent the fleet from carrying on operations. The storms brought by these winds are not infrequent, and compel vessels to leave their anchorage for sea. The atmosphere is thick with fogs and the rains are constant and heavy during these winds. The sun is seldom seen, and for the past three months has appeared only twice. You may rest assured that when we do see "the divine light of heaven," as the poets have it, the heart goes out in thanks for the small favor granted. A good sun bath is a luxury we do not often indulge in and which can only be properly appreciated by people in our situation.

Speaking of the winds, it is a strange fact that what we call the south winds are the coldest and chilliest that we endure. These are the winds that bring us our severest storms, foggiest weather, and heaviest rains. In other countries, the south winds bring calm, warm, and beautiful weather. There must be a wind whirlpool, somewhere along the Aleutian coast, which changes the current of the air and the temperature of the climate. Perhaps, as the lovers of science advance this way, they may be able to discover the causes which make our south winds feel as if they came right from the north pole. In this as in a thousand other matters of great scientific interest, Alaska offers an inviting field of observation.

The few Americans on the islands are not, however, so much interested in science as they are in codfish. In catching the latter and making it marketable, their time, during the fishing season, is pretty well occupied. From daylight until dark—and daylight and darkness are considerably mixed here—the hands are engaged in catching and salting.

Codfish are taken by men in small boats, who go to the fishing grounds and bait for their harvest of the sea. They fish with lines, and use what are known as eleven and twelve inch hooks. Halibut and cuttle fish are the best bait. A good fisherman, if he is lucky, will haul up 400 codfish in a day, and this is considered a splendid catch; to procure 300 on an average every day is very satisfactory. Having brought the catch on board, the fish are immediately salted, packed away, and are not again touched until the cargo lands at its destination.

White men make better fishermen than the Aleuts, although the latter, when they are trained, do very well.

It may seem to your readers that life on this coast cannot be very enjoyable; and yet the white men here appear to be as happy as they could hope to be anywhere in the world. You hear very little growling or complaining. Our wants are few, and we scarcely know what care is.

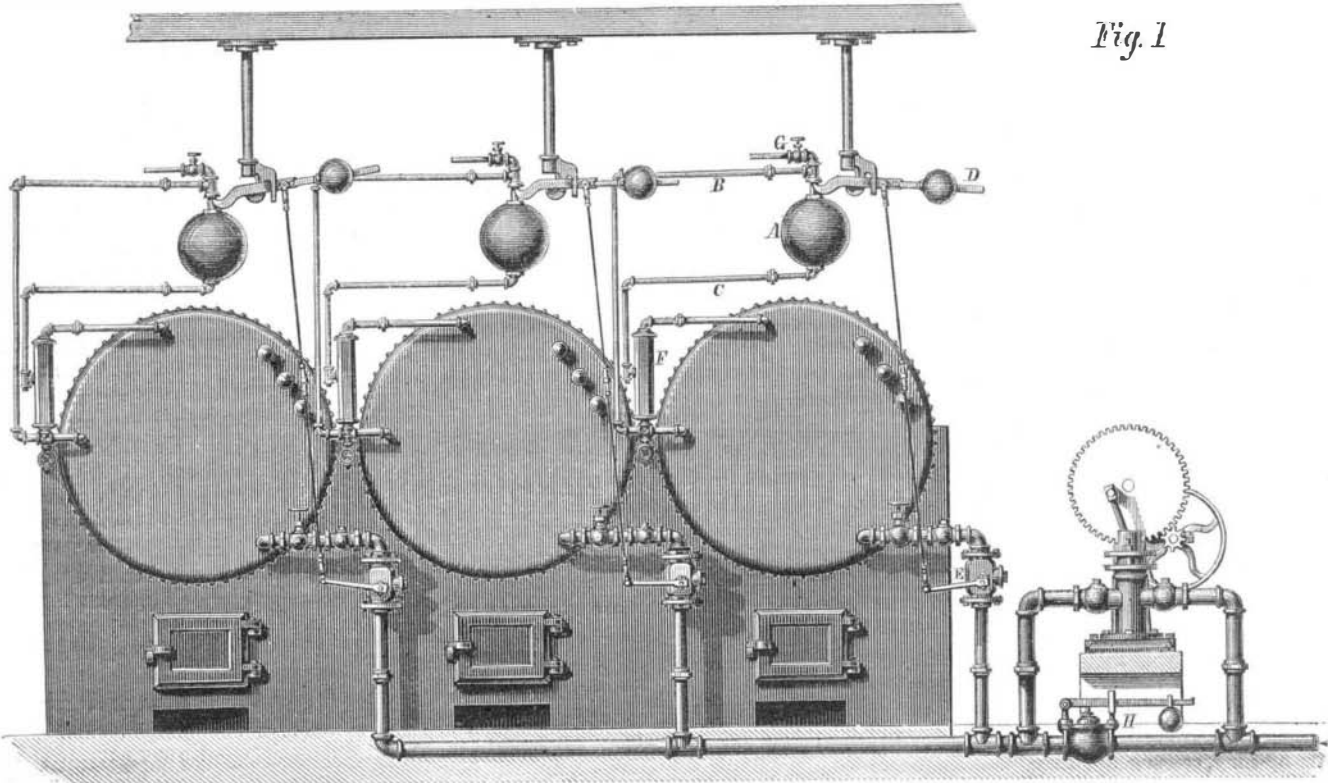
THE use of red light in photography has been found to hasten impressions and increase their sharpness. A diaphragm of thin translucent reddened paper in place of the ordinary metallic diaphragm in the camera has been tried with great success.

## IMPROVED FEED REGULATOR FOR BOILERS.

The construction of this machine is based on the principle of gravity acting upon a counterpoised hollow sphere, A, the varying weight of which, together with that of its contents and the counterpoise, is made to operate a lever. The sphere may contain water, water and steam, or steam alone. Fig. 1 shows an illustration of three regulators attached to a similar number of boilers. The flexible pipes, B and C, are made at

and the water in the globe, A, flows back by gravity, to a level with that in the boiler, through the discharge pipe, C. The weight, D, now overbalances the empty or partially empty globe, A, and falls again, opening the valve in the feed pipe.

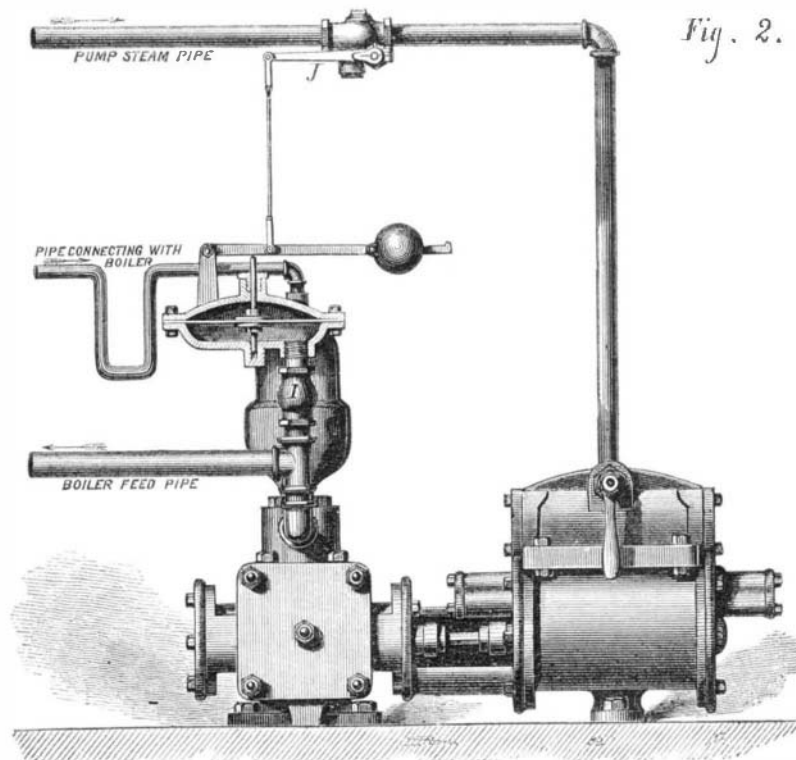
The inventor states that this device is now attached to hundreds of boilers, so regulating the feed that a variation of not more than one quarter of an inch occurs in the water level.



BERRYMAN'S PATENT FEED REGULATOR FOR BOILERS.

least six feet long on the horizontal part, and connect the interior of the globes, A, to the interior of the boiler by their connections with the columns, F. The end of the pipe, B, is connected with the proper water level in the boiler, and the pipe, C, called the discharge pipe, is connected at any convenient point below the water level. If the air in the globe, A, is expelled through the air cock, G, and there is sufficient water in the boiler to cover the inlet of the pipe, B, on the water line (steam having been generated in the boilers), water

ing glass gages and gage cocks by small pipes, leading out from the tube sheets through the cast iron fronts of tubular boilers, owing to the intense heat acting on these small pipes, is obviated by the use of the column, F. Unless the usual gages are slowly and carefully opened, engineers are often deceived, as steam is shown when there is plenty of water, while there exists the possibility also of their being closed by deposits. The column, F, is attached to the boiler by a one and a quarter inch steam and one inch water pipe, to the



will be forced through the pipes, B and C, and the globe, A will be kept filled. Its weight then overbalances the counterpoise, D, and, by the connecting rod, closes the valve, E, in the boiler feed pipe. The globe, A, is suspended on knife edge bearings, similar to a scale beam; and as soon as the water in the boiler has evaporated so that steam can enter the inlet of the pipe, B, an equilibrium is at once formed,

front of which a glass gage may be attached with advantage. The inventor states that the use of the column prevents the fluctuations witnessed in the glass gage, as well as supplying clear water to the gage from below the surface, which generally is loaded with more or less scum. Should any enter, however, it may be readily blown out at the bottom of the column.

The inventor also states that this manner of attaching a column with pipes of different areas is important, and preferable in all kinds of steam boilers. The column and regulators may be attached to any part of the boiler most convenient for getting a direct motion to the valve, which is operated by the regulator. The latter, in most cases, is conveniently suspended by a flange and a piece of steam pipe from a ceiling or wall, as shown in the engraving. This invention was patented in January, 1871.

Fig. 2 shows another device by which the loss of power, usually consumed in pumping against a weighted valve, as shown in Fig. 1, is avoided. The connections of this machine are simple and economical of power, and it is intended to reduce the wear of pumps used on marine engines, for which it is more especially designed. The construction of it is such that the power derived from the pump may be used either to open or close a valve, as required.

The device is constructed by bolting together two metal disks, with a flexible diaphragm between them. In the center of the diaphragm is a spindle securely fastened, one end of which acts as a guide, the other end extending out through a stuffing box and supporting the lever upon which the weight hangs, the arrangement being somewhat similar to that of a safety valve. The under side of the flexible disk has com