Night.

A TRANSLATION.
[From the Latin. Æneid, Book IV.]
'Twas night;
And weary souls throughout earth's wide extent
Were wrapped in slumber calm, from heaven sent;
The murmuring wood and Neptune's vast domain
Lay hushed and still, beneath Night's starry train;
The fields partook of Nature's calm, and slept,
While o'er the quiet flocks and herds there crept
A soothing influence, and, bathed in sleep,
The myriad coursers of the air and deep,
Forgetful now of daily fear and care,
The priceless blessing of the goddess share.

Torpedoing an Oil Well.

[Extracts from Pater read before 2 G. Society.]

On arriving at Bradford, Pa., the headquarters of the northern oil field, our little party was invited to see a torpedo put into a well which was being cleaned out.

Early in the morning, we left the city by one of the little narrow gauge railroads, which zigzag up over the hills, following contours to avoid cuts and trestles. This particular road, after about two miles of innumerable bends, comes back along the edge of the hill above the city, with the starting-place almost within stone's throw beneath our feet, then turns, and, twisting in and out, always rising, finally gains the level hill-top. Here, with increased speed, we rattled through the heavy forest, getting glimpses of tall derricks, looking like unfinished church spires, some new and clean, others discolored by patches of bluish clay, and many black and greasy.

At a stopping-place with pretentious name we left the train and slowly climbed the hill, following a wagon-trail deeply gullied by the heavy rains.

When we reached the well, we found things nearly ready for the "glycerine" man.

The well had been thoroughly cleaned out and drilled through the sand, i.e., the strata bearing the oil. While the tools were coming up for the last time we had a chance to look about. The derrick, or "rig," as it is commonly called, is a tall, slender, open tower, seventy-two feet high, twenty feet square at base, and tapering to four feet square at top. It is built throughout of plank, cross-braced, and is very light and strong, offering little surface to the wind. On one side are the engine-house and boiler, on the opposite a strong shaft with large wheels at each end. On this shaft is wound the cable on which the tools are hung. On a third side of the derrick is a ladder reaching to the top, and on the fourth side of the floor are bellows, forge and anvil, by which the drill is sharpened. This well, however, being "gassy," the forge had been removed into the bushes.

In one corner of the derrick stood the long joints of tubing, which reaches to the bottom of the well, and through which the oil flows, or is pumped. Each well has at least three sizes of pipe in it, one inside the other. First and largest is the drive pipe (or wooden conductor box), which reaches from the top of the ground down through the drift to the solid rock. The drive pipe is of wrought iron, twelve inches internal diameter, in lengths of about twelve feet, screwed together by collars. Inside of this is the casing, five and five eighths inches in diameter, which reaches from the top of the well down below the water veins, a distance varying for each well, but in general from three hundred to six hundred feet. Its object is to shut off the water. It is put in as soon as the drill has reached these lowest water veins, and, if tight, is not removed until the well is abandoned. Inside of this is the two-inch tubing, which extends from the top to the bottom. This is taken out whenever it becomes clogged, or the well requires cleaning. With a good engine, two men can take out and put back a "string" of tubing in one half day.

While gaining this information, the cable was running rapidly out of the hole, up to the top of the derrick, and down around the shaft. Soon it began to drip and spray oil, and we quickly got to windward of the oily mist to watch for the tools. These, when out, were swung to one side, and the bailer was run once to show the owner that the well was clean.

While this was being done, the "glycerine"