The following excerpts are from the memoir of Sergeant Donald Kyler, a Soldier who served with the 1st Infantry Division in World War I. Kyler’s type written memoirs are included with his other papers in the World War I survey collection at the U.S. Army Heritage and Education Center at Carlisle Barracks, Carlisle, PA.

The transcriptions below are taken from the copies in the USAHEC collection, and are presented unedited and as unchanged as possible. As with all transcripts there is the possibility of error.

(Kyler’s thoughts on the early gas masks)- About that time we were issued gas masks. The first ones were furnished by the French. They were thick pads of gauze like material formed to fit over the face and nose. A carrying pouch was furnished to put them in when not in use. After a short time the French mask was replaced by a British type mask. It had a face piece of rubberized and plastic material which fit from the forehead to under the chin. It had two goggle type eye pieces. There was a nose clamp in the mask, and breathing was through the mouth. A flat rubber mouth piece was to be held in the mouth while wearing the mask. Under the mouth piece was a rubber one way valve which allowed exhaled air to escape to the outside but did not allow air to enter. From the mouth piece a flexible tube extended to a canister which was carried in a canvas pouch. The canister contained filtering material to remove gasses from the air. Both it and the face piece, when not in use, were carried in the pouch.

Those pouches were made of heavy canvas with a flap cover over the top. They had a strap attached to the top corners, to be worn over the shoulder, with the pouch hanging on the opposite side. Or the strap could be shortened so that the pouch hung on the chest just below ones chin and the strap extending back of the neck. That was called the alert position and was intended to be used in situations where gas was likely to be encountered. In situations where gas was less likely to be encountered the pouche could be carried in the side position. But many of us found the chest position preferable when the masks were necessarily with us. There was a cord to extend around the body to secure the pouch snugly to the chest. In that position the pouch was less of a hindrance in movements or activities.

When we first moved to within artillery range of the enemy we were very alert and apprehensive of the possibilities of gas attacks. Many alarms were sounded when there was no gas. Some of our French allies were amused at our caution. Then gradually our fears left us and we became as passive and immune to false warnings as were our French friends.

When in close contact with the enemy a gas attack was very unlikely because it would affect them almost as much as it would us. And when in a rear area there would be time to get a mask. So we became somewhat negligent in keeping a gas mask always near us; which was contrary to orders.

Then there were times when it was almost impossible to do what we were supposed to be doing when encumbered with that gas mask and pouch. For instance, the cooks and their helpers when preparing food. And in the time that I served as a company runner I often went without a gas mask in order to travel faster and easier. I could mention many other cases when gas masks were put aside temporarily by members of our organization for reasons mentioned above.
However, when real gas attacks came (of which we had some) it was necessary to wear the mask continuously while the gas persisted, regardless of the slowing down or stopping of operations.

A little later a corporal in Headquarters Platoon was assigned the duty of testing and evaluating the severity of gas in our area and warning us when masks should be worn. For that purpose he was furnished a gas detecting device. The mask was uncomfortable to wear and greatly restricted breathing and vision. It did protect the eyes and lungs from the effects of the gases then in use. But it did not protect the skin from toxic gasses, particularly mustard gas. That mask was superior to the French one. We would not be without it while in the forward zone during the rest of the war. I used mine as a pillow when I slept, and in the pouch under the mask I kept a pencil, paper, and certain other articles.

According to my observation, most of the gas casualties in my unit were caused by negligence in putting the mask on and keeping it on when gas was present. That might mean prolonged discomfort and perhaps misery for many hours. No food, no drink, no sniffing to see if gas was still about. Some men would not heed a warning.

(Kyler’s thought on a gas attack)- During the time that Lieutenant Church commanded us the weather took a foggy and damp spell. There was no wind. That was favorable weather for a gas attack, and we got one. The Germans did not fire gas shells near our front lines, because that was near their own troops. But our rear areas got it, mostly mustard gas. It is heavier than air and has a tendency of settling on and permeating damp clothing, bedding, dead leaves, grass, etc. It is toxic and can cause severe skin damage. Almost all activity in the area was stopped. We had to wear our gas masks for more than twelve hours. That is- all but a few fools who insisted on taking their masks off to see if the gas was still there. A man in Headquarters Platoon had been specially trained to tell us when it was safe to take our masks off. But some men would not heed. The result was that we had few respiratory casualties, which was entirely unnecessary. I had mild skin burns on most of my body. After a few days my skin partly peeled off, similar to a sunburn. Although it was very uncomfortable, I stayed on the job, as did most of the others. There was one consolation though- the cooties seemed to suffer more.

(Kyler’s thoughts on Mustard Gas)- Of the several kinds of gas used in World War One, mustard gas was used most often of any of them. Other gasses were more potent and lethal, but the mustard variety was the most persistent. It was heavier than air and sought low and damp places. It was a burning toxic agent and permeated clothing, bedding, grass, leaves, and even loose soil. When breathed in sufficient quantities, it caused lung damage in the form of severe congestion, bleeding and coughing. When eyes became exposed to it they became inflamed, swollen and sometimes damaged to the extent of blindness. Dry skin was little effected by the vapor, but dampness such as sweat in clothing, fog or drizzle, caused the gas to cling to the surface and might cause severe burns, sometimes to the extent of open sores. Any of the aforementioned conditions put men out of action. Although most of the cases recovered, the worst ones did not. Some of them might die of the effects months or even years later.

The Germans started the use of poison gas by venting it from pressurized cylinders early in the war. They surprised the Allies and caused many casualties and near panic in the allied armies. But because the Germans lacked gas in sufficient quantity to continue on a large scale, and thus win the war, the Allies had enough time to develop gas masks which were more or less
effective protection for the gas then used. Research went on quickly, and soon all the European armies were equipped with suitable gas masks.

Mustard gas had not then become much used, but was being developed. Later, a way was found to put liquid gas in projectiles, such as mortar and artillery shells, aerial bombs, etc. The projectiles, when exploding, vaporized and scattered the gas. Thus, gas could be spread and saturated over a much larger area; to the full extent of the range of the guns. (Some guns of the field artillery had a range of twenty miles or more. Heavy guns more than thirty miles). The use of gas from cylinders was mostly abandoned because its use depended greatly on the direction of the wind, and was limited in extent.

After the development of effective gas defense methods, namely, gas masks, gas detection devices, gas proof shelters, ointments to protect the skin, etc; perhaps the most effective use of gas from a military standpoint was the fact that it more or less immobilized an enemy for a considerable time. One side intending to attack a certain sector of the enemy, would not want to saturate the ground that they intended to attack. But the area of the opposing infantry’s rear, containing his artillery, supplies, communications, etc., would be another matter. By covering every known artillery position, every supply route or installation, and reserve troops with a sudden gas bombardment, would be to render them temporarily unable to function. Then the attacking force would launch their attack.

That method was used by both sides in the latter part of the war, but was limited by the shortage of gas shells due to manufacturing difficulties. In one such attack, our division’s artillery used over 6000 gas shells in one bombardment. By the time that my unit got into the war, gas masks for horses and mules were also available. But they were not very effective. It was difficult to keep the masks on the animals, and in no case was the animal useful for draft purposes while wearing one.

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