THE DELAWARE REGISTER:

OR,

FARMERS', MANUFACTURERS' & MECHANICS' ADVOCATE.

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FOR THE DELAWARE REGISTER.

SUNDAY SCHOOLS.

Among the benevolent institutions of the day, there is not, perhaps, one which is calculated to produce more important and beneficial results, than SUNDAY SCHOOLS. The moral lessons there taught are administered principally to those of an age when the heart is peculiarly susceptible of good impressions; and it is a remarkable and pleasing fact, and one which speaks volumes in favor of these Schools, and which ought to put to silence the opponents of them, that in the criminal lists of most of our principal cities and towns, very few instances are recorded of persons who have enjoyed the blessings of a Sunday School education, having been brought to the bar of justice for a violation of the laws.

I did not set out to write an essay in favor of Sunday Schools, or to adduce arguments to prove their utility. My object was merely to mention a few circumstances in which I sincerely hope a goodly portion of the citizens of this Borough will feel themselves interested.

A few weeks ago I visited the Sunday School of the Episcopal Congregation of Wilmington, which is held in the Academy. I there beheld upwards of one hundred and twenty children, of both sexes, attending with much earnestness to the lessons and instructions imparted by about twenty teachers. The scene, to me, was one of deep interest, and could not fail to produce in any thoughtful mind, a crowd of solemn and important reflections. I felt confident that the labor bestowed on these scholars would not be entirely lost; and that many of them would thereby be made more dutiful children, more faithful servants, more useful members of society, and better qualified to enter upon the discharge of its various reciprocal duties. After the usual lessons had been gone through, the Pastor of the Congregation, the Rev Mr Corr, according to his usual custom, addressed the children. For such a task this gentleman appears to possess a very happy adaptation of language and manner. I was pleased to observe and to learn that in this School no attempt is made to create any thing of a sectarian feeling. Teaching to spell and read, and enjoining the observance of the duties we owe to our Creator and our fellow creatures; duties acknowledged by all denominations of Christians, and by all good members of Society, are the subjects to which the teachers devote their attention, and in the address alluded to, I do not think there was a precept inculcated, to which any parent, guardian, or master, in the Borough, would make exception.

Some of your readers may not be aware that in 1821, the Legislature of Delaware made an annual appropriation of two hundred dollars for each county, for the support of Sunday Schools, limiting the amount to be claimed for each *white* scholar, to twenty cents, blacks being excluded altogether from any benefit in its provisions. These Schools have, however, so greatly increased in this County, that when the appropriation is distributed, the portion of each is reduced to a pittance very scanty indeed. Owing to this circumstance, with the constantly increasing number of scholars in the Episcopal School, its funds have been entirely exhausted and it is now in want of Books. To supply the deficiency, the Directors and Teachers have concluded, for the first time, to make an appeal to a generous public. At their request, the Rev Mr Coit has consented to preach a sermon on the occasion, *to-morrow evening*, in the 1st Presbyterian Meeting House, when a collection will be taken in aid of the School. I heartily wish that there may be a general attendance of the friends and (if there be any in this place) the enemies of Sunday Schools, and that the liberality of the audience may be such as to enable this School to go on with renewed vigor and increased means of doing good.

A VISITER.

Communicated for the Delaware Register.

Observations on the HOUSE SPIDER, *read before the Delaware Academy of Natural Science, Wilmington, Feb. 7th*, 1829.

The House Spider is one of upwards of fifty species of apterous insects comprehended in the genus *Aranea*. The mouth is furnished with short horny jaws; the lip rounded at the apex. It has two feelers incurved and jointed, very acute at the tip, clubbed with the genitalia in the male. It has most commonly eight eyes and eight feet. The anus is supplied with papillæ or teats for spinning. It fixes the ends of its threads by applying those nipples to any substance, and the thread lengthens in proportion as the animal recedes from it. It can stop the issuing of the threads by contracting the nipples, and re-ascend by means of the claws on its feet, much in the same manner as sailors warp up a rope.

When a house spider purposes to begin a web, it first makes choice of some commodious spot where there is an appearance of plunder and security. The animal then distils one little drop of glutinous liquor, which is very tenacious; and then creeping up the wall, and joining its threads as it proceeds, it darts itself in a surprising manner to the opposite place where the other end of the web is to be fastened. The first threads thus formed, drawn tight and fixed at each end, the spider runs upon them backward and forward, still assiduously employed in doubling and strengthening them, as upon their force depends the stability of the whole structure. The scaffolding thus completed, the spider makes a number of threads parallel to the first, in the same manner, and then crosses them with others, the clammy substance of which they are formed serving to bind them together. The edges having been well fortified, the retreat is next to be attended to; and this is formed like a funnel, at the bottom of the web, where the little creature lies concealed. To this are two passages or outlets, one above and the other below, very artfully contrived, to give it an opportunity of making excursions at proper seasons, and of prying into every corner. If the outworks of the fortification be touched from without, the spider instantly prepares for attack or defence. If the insect touching be a fly, its feet are almost to a certainty entangled in the web. Great exertions are, however, used by the deluded victim, by means of its wings, to extricate itself. This it would probably sometimes be able to effect, were it not for its wily enemy. At this juncture, as I have frequently noticed, the spider cautiously approaches with a noose of its own spinning, on one of its fore feet, and dexterously throws it over the wings and body of the fly; instantly retires, and prepares another and another, which it disposes in the same manner, till every part is enveloped and every motion suspended. It then approaches its prey, and with its sharp horny nippers severs the head from the body.

It often happens that some larger animal destroys or very much injures the labors which the housewife's brush has spared. In this case, the spider is obliged to remain a patient spectator of the ruin; and when the danger is past sets about repairing the calamity.—In general, the animal is fonder of mending than making, as it is furnished originally with but a certain quantity of glutinous matter, which, when exhausted, nothing can renew.

What appears to the naked eye to be but a single thread in the web of a spider, is composed of a number of strans or smaller threads drawn from as many different openings in the papillæ. How astonishing must be their tenuity, when, according to the calculations of Lewenhook, ten thousand such threads are no thicker than a single hair of his beard.

Mr Disjonval, an adjutant-general in the Dutch service, while a prisoner, made a variety of experiments and observations on the spider, which have shown that it may be employed with advantage on meteorological inquiries.

He remarks "that spiders are particularly excellent as prognosticators of changes in the weather, being more certain than the barometer, giving their indication a longer time beforehand, and having this advantage, to the lower class of people, that they cost nothing." On the common house spider he made the following remarks. "Against fine weather, it peeps out its head, and stretches its legs out of its hole; this the further the longer the fine weather will continue. Against bad weather it retires farther back; and against very tempestuous weather it turns quite round, showing nothing but its hinder parts to the observer, thus acquainting him with the approaching change. At the commencement of fine weather, the web with which it surrounds its corner, is but of moderate extent; if the fine weather will be lasting, it enlarges it to two or three inches; and if it do this several times repeatedly, we may be certain that the weather will continue fine for some time."

On the 22d of July, 1795, Mr Disjonval foretold, from the behavior of his spiders, a fortnight beforehand, that the waters of the Rhine would fall so as to render it passable by a bridge of boats, and in this manner it was passed.

His observations on the general conduct of the spiders in the winter season, are also important, as they are prognosticators of approaching cold. If frost and snow be coming on, they either seize upon the webs already made, in which case obstinate battles frequently ensue, or they make new ones, and labor diligently at them.

Disjonval found, from several attentive observations, that, from the first of the spiders putting themselves in motion, to the setting in of the frost, nine days generally elapsed. We have a striking instance of the justice of this observation in the circumstances which took place in the beginning of February, 1793. The weather was fine, warm, and there was no symptom of approaching frost. It might have been supposed that fires would be no longer required; but on the 4th of February Disjonval announced that a great alteration in the weather would ensue, as, besides other remarks of a similar kind, he had seen three spider's webs, one over another, in a place where there was not one the preceding evening. On the 9th of February there was ice, and by the 13th all the canals were frozen over.—It was now probable, that with the breaking up of the frost the winter would terminate. This was the opin-