possible that in aqueous acids we have present, not the ion H, but OH_3 or $OH_2 . H$. In each case the hydrogen ion would be associated with a molecule of the solvent. Besides these compounds which act as acids in water, there are other compounds not acids in aqueous solution, which act as acids in ammonia. Such, for example, are the acid amids and imids. In acetamid we may, perhaps, assume the ions CH_3CONH and H; in urea the ions H_2NCONH and H, as well as $CO(NH)_2$ and 2H. Here the NH seems to play the same part as the oxygen atom of the hydroxyl of acetic or carbamic acid. When sodium is dissolved in liquid ammonia, it gradually decomposes it with the evolution of hydrogen and the formation of sodium amid, $NaNH_2$. The reaction is of course exactly analogous to the action of sodium on water with the formation of sodium hydroxid, NaOH. The interesting point is that sodium amid in ammonia solution is a base, just as sodium hydroxid in water. It colors phenolphthalein and neutralizes the ammonia acids. Just as aqueous bases contain the OH ion, the ammonia bases contain the NH_2 ion. When the bases react upon acids in liquid ammonia, salts are formed, which may be precipitated when insoluble, or left as crystals on evaporating the ammonia. Thus the reaction between acetamid and potassium amid may be expressed as follows:

$$CH_3CONH . H + K . NH_2 = CH_3CONH . K + NH_3.$$

Salts of the strongly positive metals, as far as they are soluble, dissolve in ammonia as in water without change. Compounds of the negative elements are more or less completely hydrolyzed by water. The same compounds are 'ammonolyzed' by liquid ammonia. The analogy is shown by comparing the reactions:

$$AsCl_3 + 3H . OH = As(OH)_3 + 3HCl$$
$$AsCl_3 + 3H . NH_2 = As(NH_2)_3 + 3HCl,$$
$$(3HCl + 3NH_3 = 3NH_4Cl).$$

As the hydrolysis of $SnCl_4$ gives us not $Sn(OH)_4$ but $SnO(OH)_2$, so the ammonolysis of PCl_3 gives not $P(NH_2)_3$ but $P(NH)NH_2$, and of SiS_2 gives $Si(NH)_2$ rather than $Si(NH_2)_4$. As with hydrolysis so in ammonolysis the reaction need not go to completion. In such a case we have in aqueous solution the precipitation of basic salts, and so here also are formed ammono-basic salts, which may be more or less de-ammoniated and hence appear as amins, imins or even as nitrils, that is, nitrids. The reaction of the formation of these basic salts is, as would be expected, reversible, and they can, after precipitation, be carried back into solution by an excess of 'ammono-acid,' that is, by an ammonium salt. This method of treatment seems to clear up very satisfactorily the mercury-ammonia compounds which have for nearly three quarters of a century been a stumbling block to chemists. They here appear to be ammono-basic salts, or mixed hydro- and ammono-basic salts, occasionally with ammonia of crystallization. They thus fall completely in line with the many and more familiar hydro-basic compounds of mercury.

It is a large field which has thus been opened by Franklin, and one which will require much work, of great experimental difficulty, before it is satisfactorily worked over, but what has been already done has served to greatly broaden our knowledge of solutions.

J. L. H.

FIRST INTERNATIONAL CONGRESS OF ANATOMISTS.[1]

THE first meeting of the Congrès fédératif international d'Anatomie was held in Geneva, and commenced on the morning of Sunday, August 6, by the opening of an exhibition of specimens and appliances illustrating recent progress in anatomy. The congress closed on the evening of Thursday, August 10, when three hundred members and adherents of the congress were entertained by the city of Geneva at an official banquet. The congress represented a conjoint meeting of the five leading anatomical societies—the Anatomical Society of Great Britain and Ireland, Anatomische Gesellschaft, Association des Anatomistes, Association of American Anatomists and the Unione Zooligica Italiana.

[1] From *Nature*.

Almost every country was represented. Switzerland itself contributed more than 100 members, France 66, Germany and Austria 36, Great Britain and Colonies 23, Italy 11, America 3, and other countries 16. The largest contributors to the proceedings of the congress, however, were the Germans; out of a total of 117 communications, 32 were made by them, 31 by the French, 18 by the British, 15 by the Swiss, 8 by Italians, 5 by Swedes, and 2 by Americans.

From every point of view the congress was a success. Anatomy is peculiarly susceptible of international treatment, the subjects for description and discussion being concrete and capable of direct demonstration. The language difficulty certainly hindered a free discussion on more than one occasion; for instance, on the second day, a speaker, after giving his communication in French, listened most attentively to a vigorous criticism in German, and, bowing profoundly, replied, 'Je ne comprends pas l'allemand.' With an agenda list overloaded with 117 communications, there was a grave risk of disorganization. Thanks to the complete arrangements made by the committee of organization, presided over by Professor A. Êternod, of Geneva, and to the perfect arrangement of business by the president of the secrétariat, Professor von Bardeleben, the proceedings of the congress made an even and steady progress. The success of the congress must also be ascribed to Professor Nicholas, of Nancy, secretary of the French society; English members were indebted to Professor Symington, president of the British society, and to Dr. Christopher Addison, its secretary. Each day's work was divided into two parts; the morning was devoted to papers, ten minutes being allowed for each communication, and three minutes to any member who wished to criticize; the afternoon was set aside for exhibition of new specimens and demonstrations of the material on which the communications of the morning were based, and this was by far the most instructive and profitable part of the day's work. The Swiss cow-bell employed by the president of each day's proceedings (for the president of each society acted in turn as chairman) to warn the speaker that he had reached the limit of his allotted time, bound the members of the congress by a common sense of humor and materially aided the success of the meeting. In spite of the *entente cordiale*, the British anatomists associated more closely with the German than with the French members of the congress—an association determined, for the greater part, by the fact that the Germans were the superior linguists.

The members of the congress took part in the dedication of a monument to the memory of Professor Hermann Fol, who set sail from Havre in his yacht, *l'Aster*, in the spring of 1892 to investigate the fauna of the Mediterranean. From the day he sailed until now not a single trace has been discovered of ship or crew. The members of the congress were lavishly entertained by Madame Fol. The congress placed a wreath on the bust of the Swiss physiologist Servetus, who discovered the pulmonary circulation in the sixteenth century, and was burned at the stake by Calvin because, so it is said, he denied the existence of the Trinity. A wreath was placed by the British section of the congress on the spot where he was burned, this gracious act being prompted by Professor Dixon, of Trinity College, Dublin.

The congress was a social as well as a scientific success. An invitation from American anatomists to meet at Boston in 1907 was declined, as it was felt that at least a space of five years should intervene between each congress. A permanent committee for the organization of the next congress was formed by the nomination of five men, one from each of the five affiliated societies. It is intended to bring out a bulletin containing the proceedings and transactions of the congress, to which purpose part of the sum (11,000 francs) raised by subscription in Geneva to meet the expenses of the congress will be devoted. When it becomes the turn of London to entertain this congress, it will not be found an easy matter to attain the standard of hospitality which has been set by Geneva.