

"gram-equival. per l.," that, in chemical equivalent quantities of H_2SO_4 and of HCl , there are twice as many H ions in the H_2SO_4 as there are in the HCl . Dr. True clearly regarded this as a gram-molecule per liter solution, so my reference to this point is not without good ground.

Since Heald referred to the whole paper of Kahlenberg and True, and since several dibasic salts are there⁷ listed "gram-molecule per liter," my general reference is abundantly warranted.

An illustration will make clear one misconception. Dr. Kahlenberg states that gram-molecule and gram-equivalent solutions of KHSO_4 are the same. I hold they are not. In a gram-equivalent per liter solution of KHSO_4 there is *one-half* gram of H . Dr. Kahlenberg's position is that there is *one* gram of H . If I misinterpret this substance I am in good company. (See definition gram-equivalent and references to Talbot, Mohr, Sutton, Fresenius, p. 230.)

As to dissolving substances in so much *water* or in so much *solution*, I may say that I am surprised at Dr. Kahlenberg's defending, *in any case*, the former method.

My paper was not written as a criticism of Kahlenberg and True, as he seems to think, though their work was freely drawn upon for illustration.—JAMES B. DANDENO, *Normal and High School, St. Louis, Mo.*

BASILIMA, SCHIZONOTUS, SORBARIA.

IN THE July number of the BOTANICAL GAZETTE (32:56) Mr. Alfred Rehder discusses these names, reaching the conclusion that Sorbaria is the proper designation for the genus in which *Spiraea sorbifolia* Linn. is now placed. His decision in the case of *Basilima* Raf. seems unquestionable, viz., that when it first appeared, in 1815, it was a *nomen nudum*, and when republished in 1836 it was a synonym of *Schizonotus* Lindl. But why *Schizonotus* Lindl. should be set aside is not so clear to me. It is said that where it was first published, in Wallich's *Catalogue* (no. 703; Pritzel says that this portion of the *Catalogue* appeared 1 D 1828), this name was a synonym. The *Catalogue* is cited fully and correctly: "no. 703, *Spiraea Lindleyana* Wall. *Schizonotus* Lindl. (gen. nov. *Spir. sorbifoliam amplexans*)," but I fail to see how there is any synonymy here; if so, of what is *Schizonotus* a synonym? We have here rather an annotation. Wallich's *Spiraea Lindleyana* is said to belong to the new genus *Schizonotus* Lindl., based upon *Spiraea sorbifolia*. *Spiraea Lindleyana*, like most of the other names of Wallich's *Catalogue*, when divorced from the specimens which were intended to accompany it, is merely a *nomen nudum*; while *Schizonotus*, distinctly based upon a well-known species, *Spiraea sorbifolia*, is certainly not a *nomen nudum*, and can scarcely be held a synonym of one!

⁷ Bot. Gaz. 22:96. (CuSO_4 , etc.)

Again, it is claimed that the second publication of *Schizonotus* (Lindl. *Introd. Nat. Syst.* 81. 1830) is as a synonym. Again Mr. Rehder quotes correctly, but, as it appears to me, draws wrong conclusions. Lindley says: "*Spiraea sorbifolia* (Schizonotus m.)." This is not synonymy, but annotation. Of course, "Schizonotus m." is an abbreviation of "Schizonotus mihi," and the case is precisely the same as if Lindley had written in full: "*Spiraea sorbifolia* (which I have distinguished as a separate genus under the name *Schizonotus*)." Surely this is not synonymy. If so, why does Lindley, two pages farther on, in naming the typical genera of Spiraeaceae, enumerate "*Spiraea*, *Gillenia*, *Schizonotus*"?

Mr. Rehder admits that "in 1836, Lindley enumerates (p. 145) *Schizonotus* as a genus, and characterizes it (p. 441) by mentioning *Spiraea sorbifolia* as the type." What Lindley actually says (*Introd. Nat. Syst.* ed. 2, 441) is this: "Schizonotus, *Lindl. in Wall. Cat.*—*Spiraea sorbifolia*, etc." Am I pardonable if I fail to see why the name is published any more satisfactorily here than in either of the two preceding cases? And as far as the enumeration of *Schizonotus* as a genus on page 145 is concerned, I have already called attention to the fact that it was enumerated in the same way on page 83 of the first edition (1830).

Of course, *Basilima* Raf. 1815 being a *nomen nudum*, Seringe's sectional name *Sorbaria* was the first under which this group of plants was distinguished, but it was not used in a generic sense until 1864. It is true that the replacing of properly published generic names by earlier sectional ones has been suggested, but I am not aware that it has found any powerful advocate, even among extremists in nomenclatural reform, and I know of no botanist who has consistently carried out this principle. Yet such a principle seems to be the only excuse for the use of the name *Sorbaria*. Botanists who accept the oldest generic name must take up *Schizonotus* Lindl. 1828, while those (few of them in America, I believe) who adopt the generic name with which a specific name is first combined must use *Basilima* Raf. 1836, if they are to be consistent with their principles. It is scarcely necessary to refer to Mr. Rehder's remark that "it would be very unfortunate to revive the name *Schizonotus*, since it was applied afterwards and has been in use for two other genera," as this is an argument which will carry little weight with most people, and one which I believe Mr. Rehder himself would hardly have advanced as the only reason for discarding *Schizonotus*.

"*Sorbaria* of course will not enter into the American flora if *Chamaebatiaria* is considered as constituting a distinct genus" is another statement to which I must take exception. On the contrary, *Schizonotus sorbifolius* (L.) Lindl. (Steud. *Nomencl.* 531. 1841), the type of the genus, is peculiarly adapted to the conditions prevailing in the northeastern United States, and is winning its right to a place in our manuals as an introduced plant. It was reported

from central New York ten years ago (Peck, Rep. N. Y. State Mus. 44: [15]. 1891), and I found it myself in the northern part of this county (Westchester Co., N. Y.) in July 1895. It was at that time that I became interested in the synonymy of this genus, and Mr. Rehder's article brought vividly to mind the researches which I then conducted upon this subject.

Since writing the above I notice that the plant under discussion has been admitted to Dr. Britton's recently published *Manual*.—JOHN HENDLEY BARNHART, *Tarrytown, New York*.