

be present at the very moment, when the slumbering flower, under the penetrating dew, awakes to consciousness, and unfolds its buds to take in the first rays of the setting sun! It will welcome "Old Sol" at the very break of day; dip into that tiny fountain which distills the honey, drop by drop, and bear away the sweet treasure to its cells of wax, in its populous little home.

To reap the full benefit of the imported bees, it became necessary to be able to find an easy and safe method of changing the natives to the improved variety—to rear and ship "our ideal bees," and spread them over the whole continent. Then as if by magic these methods were discovered and put into practice, as well as to increase by "the division of colonies," instead of by swarming—and to control the fertilization of queens, so as to assist in the "breeding for good points," and the elimination of the undesirable traits of character.

Until then, but little thought had been devoted in this country to bee keeping as an occupation, and still less to it as a science. True; many kept a greater or less number of "gums" or "skeps," and a few (comparatively a very few) master minds had conceived any rational scientific views regarding many of the mysteries of the bee hive; some did to an extent comprehend the physiological history of the honey bee, but they were so very few that their wisdom was almost covered with disrepute by the ignorant and superstitious ideas of the masses, who kept bees as did their great-grandfathers, and whose comprehension had only kept pace with their improvements.

The master works of our Father Langstroth and the late M. Quinby gave rise to much thought and study, which in turn led to experiments, and these created the necessity for a periodical, in the columns of which new discoveries could be heralded, accepted theories be discussed, old prejudices be combated, and apiculture be elevated to its proper position among the progressive sciences.

In 1861, the American Bee Journal was started by the late Samuel Wagner. The Rev. W. F. Clarke ably edited and managed the Journal for about a year—and in 1873, it became the property of the present editor. That much progress has been made during the 30 years of the American Bee Journal's existence, all will acknowledge. Many doubtful problems have been solved, and new ideas promulgated; all the standard works on apiculture have been revised, over and over again; and published experience have proven to the several authors that their books inclined to error, and none but the most conceited have assumed that they know it all.

Many other excellent apicultural periodicals are now published, and there is a host of good books for bee keepers, but time would fail me to mention them all, or in the few moments allowed me, to do justice to their excellence. One thing is certain, however, that the progress and intelligence displayed in the pursuit of bee keeping, shows that much is due to the liberal use of "printer's ink" in the excellent periodicals and books devoted to this pursuit—

For printer's ink has built its throne
Where minds their tributes bring,

And God's most gifted intellects
Shout "printer's ink is king!"

In every clime, in coming years,
Will men proud anthems sing,
And round the world the echoes float,
That printer's ink is king!

Perhaps nothing has been more potent, in developing the best thoughts, the most practical methods, and the advanced ideas of those devoted to our industry, than the congregating together of apiarists in County, District, State and National Assemblies to consult and advise about every advancing step in apicultural progress.

Grand exhibits of bees and honey at the various agricultural fairs all over the country, have done much to inform the masses about honey and its uses, and, by good natured rivalry, have raised the standard of excellence, and enhanced commercial values.

By planting for honey bloom, and providing continuous pastures for the bees, from early in the spring until late in the fall, more honey will be produced, and bee keepers will become general benefactors—

For generous bloom in all the dales,
And mountain sides will grow;
And rocks and hills, and brooks and vales,
With milk and honey flow.

The old way of mashing pieces of comb taken from the breeding apartment of the hive, and "straining" out the honey from the bee bread, dead brood, etc., was so very undesirable that a new method was demanded. Centrifugal force applied to the combs furnished the desired process.

Major Hruschka's little boy, with a tin pail containing a piece of honey, which he swung around for fun, gave to the world the honey extractor. The Major noticed that on the further side of that honey comb the honey was gone. He turned the pieces of comb over, and told the boy to swing the pail again; and then the comb was empty.

That little circumstance was the father of the honey extractor, which is now so universally used to take the honey out of the comb—giving honey, minus the wax, as the choicest food for man—and retarding the combs, minus the honey, to be refilled by the bees, without waiting for new comb to be built—saving much valuable time for the bees, and tons of honey to the producer.

A peculiar knife for uncapping the combs before placing them into the extractor was an absolute necessity. An edge like a razor was needed to cleanly cut off the cappings, and leave the combs intact, ready for immediate refilling. The steel uncapping knife was then produced, with a beveled edge, a sharp point, and as keen as a razor, in just the nick of time to completely fill that want!

To control the bees while manipulating the hives, and prevent them from stinging, was greatly desired—and that "control" was bestowed on mankind by the invention of the bellows smoker, just when it was needed most.

Left to "their own sweet will," the bees will build, drone comb and produce multitudes of drones—"consumers of honey." Some way to