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MECHANIC ARTS, MANUFACTURES, GENERAL SCIENCE,

AND THE RECORDING OF

AMERICAN AND OTHER PATENTED INVENTIONS.

FEBRUARY, 1829.

On the Natural History of the Honey Bee, and the importance of its products.

[Extracted from the North American Review, for October last.]

[CONCLUDED FROM PAGE 43.]

THE little work, the title of which we have prefixed to this article, called "The Farmer's Manual," contains, in a small compass, as much of the minutiæ of the *management* of bees, as is necessary to the common cultivator. Mr. Butler is a sensible, practical writer, as well on other branches of rural economy, as on bees, and we would recommend his book to all who are engaged in those pursuits; for, with some slight deviations from his rules, such as a different climate would indicate, his experience may be beneficial to all.

We esteem it a very desirable object to make the care of the bee more common than it has, hitherto, been, in this part of the country. With the exception of a small one under the superintendence of the society of the Shakers, established at New Lebanon, we neither saw, nor could we hear of more than a single apiary, on a journey last summer to Lebanon Springs, although we made many inquiries. Never was there a country more suited to the cultivation of bees. Even in August, there is an abundance of white clover, and small springs and shallow rivulets appear at every turn. There is no doubt that bees were, formerly, more frequently kept in America, than at present. In many places in New Jersey, where there is now scarcely a bee to be seen, there once existed millions of these insects, to the great profit of their owners. It was common for one dealer in a country town, to sell from fifteen to twenty barrels of strained honey alone, to say nothing of wax and comb-honey, as well as a

tee named in the annexed patent, have surrendered, and do hereby surrender to the government and people of the United States of America, the right and liberty in said patent, to me granted or intended to be granted; and do herewith re-deliver the same to the Secretary of State of the United States, to be cancelled, annulled, and made void.

In testimony whereof, I, the said A. B., have hereunto set my hand and seal, this — day of ——, A. D. ——.

A. B. [L. S.]

In presence of us.
——C. D.
——E. F.

Account of a patent for Manufacturing Glass Knobs for Doors, Drawers, &c., by making them at one operation, without the aid of blowing. Granted to HENRY WHITNEY, *and* ENOCH ROBINSON, *of Cambridge, Massachusetts, Nov. 4th,* 1826.

THE object of making public the claims of a patentee, may frequently be better attained by methodizing and abridging, than by publishing the whole specification. We have given many examples of this, in our exemplified monthly list, and we shall frequently do so with patents of older date.

The improvement in making knobs, consists in pressing them in moulds, which moulds are made in three parts: two of these parts, which form the lower part of the knob, are hinged together, like the ordinary bottle mould, with handles to close and open them, and a clasp to keep them together when closed; this mould reaches as high as the widest part of the knob, and forms the whole of it, excepting the face. This lower mould is left open at top, and is to receive the melted glass from which the knob is to be formed. There is a cylindrical rim, from one-eighth to half an inch in height, projecting or rising above that part of the lower mould which is to give form to the knob. This is for the purpose of receiving and guiding the top part of the mould, which forms the face of the knob.

The top part just fits into this projecting rim, and is cut so as to impress any pattern or device, which may be desired. From the centre of its face proceeds a steel pin, either round or square, and of sufficient length to pass entirely through the knob. The bottom mould has a perforation through the centre, about the size of the pin; this is a receptacle for the surplus glass, which the pin displaces.

When the mould is used, it is placed on a table prepared to receive it. On this table there is a perpendicular standard, with projecting arms, in order to support a lever, and serve as guides to the shank of the upper mould. This part may be called the press.

A rod, or shank, is affixed to the centre of the back part of the upper mould. This rod passes through two guide holes in the arms of the press, which keep it in a vertical position. Upon the end of

this rod, the lever acts in giving an impression on the knob. These arms are made to swivel round, in order to remove the upper mould out of the way, whilst the melted glass is put into the lower; there being a check, to keep it in its proper place, when brought back for use.

By means of a spiral, or other, spring, the lever may be sustained, when not forced down by the hand.

The knob, when taken out of the mould, is "so entirely finished, that it only requires fire polishing, to make it a neat article, fit for immediate use."

The patentees say, "we do not claim to be the original inventors of the mould, as applied to the formation of glass wares, but admit, that for many purposes, it has been heretofore used. Our invention consists in this:—a new combination of the various parts of the mould, with the use of the pin and machinery before described, in such a manner, as without any blowing, to produce a finished knob, with a hole perforated through it, and a nick, or enlargement, so that it will not come out of the mould without opening it, at one operation, by compression merely."

SPECIFICATIONS OF AMERICAN PATENTS.

Specification of a patent for a Hinged Water Wheel, granted to MATTHEW D. BROWN, *Mason County, Virginia, Dec.* 19, 1828.

THE improvement on the hinged water wheel, is as follows, viz: There are in the first place, sixteen arms inserted into a shaft of the description long since in use, consisting of eight sides, (two arms on each side,) at the usual distance from each end: to every two arms is affixed, by hinges, (or staples used as hinges,) a float or bucket, the breadth of which corresponds with the diameters of the wheel, so as to act freely between the range of arms on each side; one-fourth of each bucket to be beyond, and three-fourths within the hinges, next the shaft when closed; each bucket is bevelled on the outer as well as the inner edge; midway between the extreme arms, are inserted into the shaft, other arms, one on each side, to support the buckets; to each of the arms last mentioned a staple is affixed, for the purpose of fastening the buckets by a hook affixed to each. If deemed necessary, other intermediate arms may be inserted into the shaft, but one set, eight in number, is considered sufficient.

The wheel thus constructed, is susceptible of being used either horizontally or perpendicularly, with or without a dam.

When used horizontally, at a stage of water above the centre of the shaft, the floats are loosened from the arms, and the water is confined in its operation upon the buckets or floats, by being planked over the current in such a way, that the lower edge may be about two-thirds as high as the wheel, and so near to it, as barely to let it have a free and unobstructed revolution; the said planked way rises