

ter Wheat;  
Barley; 6,  
tye as Fod-  
plot is to  
long. Ma-  
l be sent by  
rs by mail.  
AVITZ.  
Aug. 18,

### SPEED.

ordinary ex-  
especially  
course, the  
problem for  
with it, the  
easier. My  
son (no free  
found it im-  
honey from  
rank on the  
g about five  
me improve-  
the extractor  
ll and about  
I belted a  
inder to the  
in the wall.  
4 inch shaft  
and a "crank  
n I took the  
put on a 7  
he two by a  
t about five  
did and the  
one-fifth. I  
ve extracted  
I am sure I  
though I did  
id the extra  
combs, but I  
hey came out  
ey ever did.  
belt gives a  
rank on the  
ay many bee-  
nent.

A. SMITH.

### Chalmers' Observations

Winter cases.—The time will soon be on hand when we will have to turn our attention on wintering cases, if we winter our bees outside, and it might be appropriate for me to give my ideas on what might be well-nigh perfection in this line, but before entering on the subject would like to refer to the wintering troubles which confronted both Mr. Leon C. Wheeler of Barrytown, Mich., and a good many others. (See May C. B. J., page 185.) Mr. Wheeler wishes "some of his friends to tell him wherein he made his mistake, as he had a number of colonies die in spring which showed bad signs of dysentery, and yet their stores were fine sealed combs of white honey." I cannot see that Mr. Wheeler made any mistake in preparing his wintering cases, only he used straw packing, which I consider one of the poorest packings we have. I question whether there is anything better than dry forest leaves, but I feel certain that the source of the trouble was in improper stores. Although Mr. Wheeler's bees had nothing but sealed stores in their hives when they gave out, yet that was not the condition of their stores in early winter. His bees, no doubt, had enough unsealed honey to keep them for some time, but before getting it all consumed, it got into an unfit state for bees to winter on and gave them dysentery, which when started, either kills the colony in winter or leaves the bees individually weak, so that they are not able to stand the spring work, and one bee after another dies until the hive is depopulated. Apart from starvation, there is no trouble so disastrous in wintering as dysentery, which, I believe, is the sole cause of spring dwindling, notwithstanding the fact that some will argue that carrying chilly water is one of the causes of spring dwindling.

I fail to see wherein bees carry what we may call chilly water. Go to where

Nature has provided watering places for bees, and what do you find? You will find the bees sucking the water from the moistened earth and not drinking from the pool or stream as animals do, in fact, a close observer will often find bees standing with some of their feet in the stream and sucking the water from the earth by the brink.

Now, John McEwen, your apiary, is near by a little river; would you please go down by its banks and see if I am not correct.

"Well, Chalmers, there is no use in that for I keep lots of artificial watering places for my bees."

Never mind that, John, you knew that we can lead a horse to the watering trough, but we cannot force him to drink, and it is just the same with the bees. We may prepare a great number of watering places for our bees, but the water carriers won't by any means all go there. I keep saltish water for mine in the yard too, and yet find some of them carrying water from leaky banks about half a mile distant.

As to wintering cases, I think probably the writer got out one this last winter which has most, if not all, the main requisites. My aim was to get up a case which could be left with the bees right along, having three or four reasons for such an idea. In the first place, it saves the trouble of removing in spring and replacing in fall.

Secondly.—When never lifted bees are not annoyed by the different appearance of their home and lose no time thereby as is the result when their wintering case is removed.

Thirdly.—In reality the case don't take up as much room if left with the bees as if piled away.

Fourthly.—When not removed it makes an excellent shade.

The only objection that can well be found to this plan is that it requires special storage for the winter packing. Some I know would like the packing to