

in suspension could easily be determined. I cannot estimate exactly what quantity of water would be required per day for the house, but I shall assume 100 gallons. For this amount the filter basin would require to have a surface of one and a half square feet, and should be seven feet deep. The amount of water that will pass through the filter per day will depend upon, first, character of the filter; second, the surface area of the filter; and, third, the depth of the water over the filter. A depth of three feet of water over the filter should furnish sufficient head to force the water through the filter. As to the filter itself, on the bottom should be laid a line of two-inch tile connecting with the iron pipe that leads to the clear water basin; over the tile, one foot in depth of broken stone should be laid; over that one foot of coarse gravel, then one foot of fine gravel, then from one to two feet of medium sand. Care should be taken to have the material of these distinct layers all of uniform grade. Each grade should be sifted, and the finer as well as the coarser grades removed. Any lack of uniformity in the size of the particles composing each layer will interfere seriously with the permeability. The total depth of filter should be from four to five feet, making seven or eight feet in depth over the whole basin. The top layer of sand will likely catch most, if not all, of the quicksand, which is removed from the water. Thus this quicksand will gradually accumulate in the top layer, and in time lessen its permeability, so that the filter will draw more and more slowly. It will, therefore be necessary occasionally to renew a part or all of the top layer of sand. The old layer should be scraped off and fresh sand put in its place. It is advisable to have a separate basin for the clear water, even if it is only a small one for in event of an unusually large demand, the filter may not be able to supply water fast enough, and in any event the filter does better work when allowed to work slowly and uniformly. The clear-water basin may stand with its bottom at the same level as that of the filter, and, of course, it should be as high as the filter.

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**WATER PIPE NOT WORKING.**

I use a windmill for pumping water into a tank in the barn to supply the stables and house with water. I have always used a wooden tank until about three weeks ago. If the tank got empty and we started the mill to pump, we could get water at any place we wanted it right away. About three weeks ago, I put in a new steel tank, right in the same place where the wooden tank was. We cannot get water until the tank is one-third full. I feel satisfied that it is air in the pipes. Why should air stop the water since I put the steel tank in, when it did not with the wooden one, and how will I remedy it?

A SUBSCRIBER.

Ans.—It is evident that the air which was allowed to fill the pipes while the tank was being changed has not yet all been removed or, which is more likely, that some obstruction has got into the pipe, partially blocking it. The latter would account for checking the rate of flow from the tank and would allow air to remain in the pipe, and thus would lessen the pressure, which would account for the failure to flow until the tank is partially filled. Certainly, if the pipe were in the same condition as before, it would act the same under the same head. It would be well to examine the pipe and remove the obstruction which is very likely there.

J. B. REYNOLDS.  
Ontario Agricultural College.

A wealthy New York syndicate not long ago determined that it would be to the furtherance of some large plans in hand if they could purchase the New York Herald.

So they dispatched a cable to Mr. James Gordon Bennett: "Please wire best price for which you will sell the New York Herald." That evening the answer came: "Duly, three cents; Sunday, five cents."

"JAMES GORDON BENNETT."

**A WOMAN'S WAY.**

The world is full of heroines  
Whose bravery none can doubt;  
In circuses they face the lions,  
At home put thieves to rout.  
But when the storm has passed away,  
The trouble disappears,  
Why is it that they always say:  
"She then burst forth in tears!"

A sudden panic thrills the school,  
The children rush to death;  
The gentle teacher, calm and cool,  
Controls them with her breath.  
But when the horrid fear is quelled,  
The tumult once more sleeps,  
Why is it, by some force impelled,  
She "sits right down and weeps!"

The fire is burning in the mill,  
The terror stricken run  
To dash pell mell across the sill  
And perish every one.  
A woman leaps before their path;  
They stop in ordered streams  
They file to safety from death's wrath,  
While she sits down and screams!

I guess, from Helen, fair, of Troy,  
Unto Joan of Arc,  
'Twas ever woman's way of joy  
To move in mysteries dark.  
No doubt, when Molly Pitcher, bold,  
In battle's blood was painted,  
She left her daring deed of gold  
And went right home and fainted.  
—Baltimore Sun.

**Burdock  
BLOOD  
BITTERS**

**Burdock  
BLOOD  
BITTERS**

**Burdock  
BLOOD  
BITTERS**

**CURES**

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Pimples,  
Headaches,  
Constipation,  
Loss of Appetite,  
Salt Rheum,  
Erysipelas,  
Scrofula,  
and all troubles  
arising from the  
Stomach, Liver,  
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move about the  
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to severe headaches,  
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