

following table may be useful to anyone considering drainage.

### Size of Tile

The size of tile for mains can be obtained by referring to the accompanying table. This table is worked out on a basis of the main tile removing one-fourth inch of water from the area in 24 hours. To use this table it is necessary to know the

acreage to be drained as well as fall per 100 feet. For example, to drain 150 acres with a fall of three-eighths inch to each 100 feet, it would require an 18-inch tile, while a 9-inch tile would drain the same area with a fall of 10¼ inches per 100 feet. To be safe in selecting proper sized mains, it is well to increase the area by 50 per cent before using the table.

### Number of Acres Drained by Tile Removing ¼ Inch Rainfall in 24 Hours Inside

Dia. Inches	3/8	1 1/4	1 1/2	Fall per 100 Ft., in Inches										
				3	4 3/4	6	8 3/4	10 3/4	12	1'6"	2'0"	4'0"	7'6"	10'0"
4.....	4	7	8	12	14	16	19	21	22	28	31	44	60	69
5.....	7	12	14	19	25	28	32	37	39	47	55	77	105	122
6.....	10	19	21	30	39	43	51	58	61	74	86	122	166	194
7.....	15	28	32	45	56	63	75	85	90	109	126	179	244	282
8.....	22	40	44	62	78	88	104	118	124	152	177	250	340	394
9.....	29	53	59	83	106	118	140	158	167	204	236	334		
10.....	38	69	77	109	137	154	181	206	217	267	308			
12.....	59	109	121	171	217	244	287	326	342	418				
14.....	92	159	176	251	318									
15.....	104	190	212	300										
16.....	121	222	248											
18.....	164	298	325											
20.....	213	389												
21.....	241													
22.....	270													
24.....	336													

## "Hot Stove" Conclave Pounces on Beck's Brown-Patch Ideas

WHEN a greenkeeper, or a chairman who is especially interested in the technical aspects of greenkeeping, has a little spare time on his hands during the off season he delights to put forth his theories of brown-patch and its treatment.

To stir up things in the "hot stove" conclaves, GOLFDOM printed in December the notions of brown-patch held by Dr. W. Frank Beck, a physician who is owner of a daily fee course in Pennsylvania. Our editorial comment to the effect that remarks on this sort of a story would be appreciated met with an enthusiastic response.

Promptly at the start of each letter commenting on the Beck article did the writers pounce upon Dr. Beck's spider theory of brown-patch. They cite that this is probably one of the oldest of the hunches on brown-patch origin and was knocked out of bounds early in the research work of Green-Section turf specialists. Some of the greenkeepers in writing took a bit of fiendish delight in Beck falling for this by noting that even for one trained according to scientific lines of thought grass has enough complexities to call for highly specialized expert work. Those commenting on the

Beck article agree with its author that "those in charge of maintenance are too liable to call anything that is brown, or looks brown, brown-patch," but they cannot see where a change of name to "grass blight" would correct the too general tendency toward mistaken identity of brown-patch.

It is very evident that reports of the work of John Monteith, jr., and other grass research specialists of the Green Section are slated to continue as several of the "six best sellers" in turf business literature for the many and diverse ideas of brown-patch cause entertained in the greenkeeping field are keeping the possessors of these theories busy checking up with what the Green Section bulletins have had to say about these tenderly nursed pet hunches.

In the letters GOLFDOM received on the Beck article it was plain to see that among the working greenkeepers there were strenuous champions of a number of widely varying brown-patch origin theories. Among those who went to greatest lengths to tell their cases was the man who maintained that inability of both sides of a grass blade to get sunlight caused the disease, and the one who wrote about his belief of brown-patch cause being close cutting and the bruising of the tender "bleeding" grass blades by heavy traffic.