

### LITTLE TALKS BY BEATRICE FAIRFAX

By Beatrice Fairfax

There's a girl worker whom I want to intercede for.

She has written to me, under many names. Her cry of protest has a hundred variations. But at the bottom of it all there's an unvarying something that goes to one's heart and one's sense of justice. It's the plight of the young girl wage-earner who is treated as a child at home.

But she is a child!—her parents will answer me, with a good deal of emphasis. And it's true—for it's the girl of fifteen or sixteen whom I'm speaking of. The girl who ought to be at school, and who isn't. The girl who oughtn't to have to bend her youthful mind and body to long hours of daily drudgery, but who does do this. The girl who is willing to be made use of to help out the family support, but who does rebel at having no individual freedom.

Ever so many things are wrong about this situation, of course. It goes a great deal deeper than any fifteen-year-old can understand. What is the fault, and where is the fault, let's look at it a little. In the first place, I suppose we would all admit that a fifteen-year-old girl ought to be in school. If she isn't, it means she's had a pretty scant preparation for life. If she's just an average girl, it isn't likely that she'll take her own education in hand and continue it. So she'll suffer from this disadvantage always.

Too Young to Work In the next place, she oughtn't to be put at steady work, whether it's in a factory or in a shop or at a typewriter. You see, she's only about three-quarters grown. It's distinctly cruel—not on the part of her parents, who probably can't help themselves, but on the part of the rest of us, who look on and allow it—not to let her finish her growing.

Then, she's too young to have any physical stability. Her health won't have a really solid foundation for a few years more. And to tamper with her health is the worst wrong of all. But who can save her? She's one of a big family, perhaps. Her father's out of work, or earns small wages, and the younger children have large appetites, and provisions have to be paid for in cash. It's quite plain that somebody must help out.

And the sixteen-year-old doesn't demur. That isn't what she's protesting about. She's abundantly willing to do her share, and a great deal more than her share, to keep the family alive. It's a sacrifice to break away from her schoolmates, to spend all her young strength in an impersonal treadmill. But she accepts this sacrifice as a matter of course. Those young brothers and sisters need her help. There's nothing more to be said about it.

So she starts in. And when the first pay day comes around, she brings home her wages with a great deal of pride and satisfaction, and turns them over to her mother. It's rather a critical moment. Perhaps she hasn't expected that mother will accept those precious dollars in quite the cool, matter-of-fact way that she does. Perhaps she has taken it for granted that mother will say, "How much are you going to need for yourself, now that you are self-supporting?" or something of the sort.

Has No Spending Money But nothing of this kind happens. So, a little teary and disappointed and forlorn, she starts in on the second week's drudgery. And before many days have passed her new associates invite her to join them in some form of recreation. Perhaps it's a party at one of their houses. Perhaps it's an expedition to a moving picture theater.

She reports this invitation, timidly but hopefully, when she gets home. And it's just as she feared. Her parents firmly tell her that she's too young for evening amusements, that they can't let her go out of the house at night except in the company of an older person, and that she needs to go to bed early anyway.

And when Sunday comes it's the same story. She must mind the younger children. And she has no clothes except her working ones, poor little Cinderella. And she's safer at home, they tell her, than with boys and girls whom nobody knows anything about.

Now, I assure you that these parents that a sixteen-year-old girl ought not to be out late at night. I agree that she must be carefully guarded. But I do feel when she has joined the working army, her situation becomes different. Some compromises must be made. And discreet parents will make these compromises before the girl finds herself driven to actual revolt.

Every worker needs recreation. And which one of them needs it more than the girl who hasn't yet reached a safe and reasonable working age? It's her parents' duty to see that such a girl does have some playtime. I don't mean that they should let her go to dance halls. But let her join an innocent group of young people now and then. Let her have her friends at the house. See that she goes outdoors on Saturday afternoons and Sundays. Don't drink up her life energy without seeing that she gets some reinforcement.

Is It a Square Deal? Then there is the money question. She must clothe herself. She must meet incidental expenses. She must have spending money. Why should these sums be given to her grudgingly, in dribbles, when she gives you her total earnings without a question?

Is it fair? Are you treating her as a free individual with rights and preferences, or are you trying to keep her in a condition of slavery? "I am sixteen years old," a girl wrote me the other day, "and make a salary of twelve dollars a week. I give my mother every cent I make, and she never gives me any spending money. Don't you think I should receive a little spending money? Also, after working in a stuffy office all day, my mother very seldom allows me to go out at night. Sometimes I am really tempted to stay out forever when, after a stiff argument, I am allowed to stay out until 9 o'clock."

And another writes: "I am seventeen and work in a factory, earning eleven dollars a week. Out of this money I only get fifty cents. Now, you know, Miss Fairfax, what fifty cents is worth nowadays. Then, if I ask my mother for a dime or nickel

during the week, I've got to cry my eyes out. And when I need something to wear, I've got to cry week after week continually. Honest, Miss Fairfax, I am entirely disgusted with this life."

Don't you think, mothers and fathers, that there is reasonableness in these appeals? Don't you think it should be your business to see that these young burden-bearers have some actual, positive happiness in their lives? Remember how bad for young people excessive repression is.

To be treated with respect and to be allowed an occasional innocent "good time" is all that they are asking for. Can't you grant them this?

### How Is Distance of Fixed Star Measured?

By Garrett P. Serviss

"How is the distance of a fixed star from the earth measured? If it is on the principle of triangles, can the diameter of the earth's orbit be taken for the base? If so, I cannot conceive how any greater distance than about twelve times this diameter can be measured.—Edward Kelly, Chicago."

It is done, as you say, "on the principle of triangles," i. e. trigonometry, but you enormously underestimate the distance that can be measured in that way. Twelve times the diameter of the earth's orbit would be about 2,500,000 miles, which is 600,000 miles less than the distance of the planet Neptune from the sun. The parallactic angle corresponding to a distance twelve times the length of the base would be about 4 1/2 degrees, or more than eight times the apparent diameter of the full moon.

Now, it is possible for the most experienced observers, with the best instruments, to measure with a fair degree of approximation parallaxes of only 1/20th of a second of arc, or 1/72,000th of a degree, in which case the object must be at a distance equal to about 4,125,000 times the length of the base line.

This would show that the star was about 380,000,000 miles away, which is quite a small distance for a star, the fact being that the vast majority of the stars are apparently so remote that their parallaxes drop far below the range of measurement. Atoms are far below the limit of human vision, yet we are able to determine their probable size by indirect means and similarly, we can infer the distance of stars that are too remote to see a parallax.

It is interesting to reflect that if the earth did not travel in a large orbit around the sun no star would show a perceptible parallax and we should be ignorant of the real dimensions of the universe. In this respect some of the other planets would offer better and some worse points of observation than the earth. Mercury, for instance, the diameter of whose orbit is only 72,000,000 miles (that of the earth being 186,000,000) would be a poor place for the parallax measurer, while Neptune, with an orbit 5,583,000,000 miles in diameter, would give him a base so long that he could probably sound the profoundest depths of the visible universe.

There is an interesting method of determining the distance of stars without the use of a baseline—i. e. without knowing their parallax. This method is applicable, however, only to certain binary stars—i. e. double stars in revolution around their common centre of gravity. When, as happens in a few cases, such stars can be observed, both visually and spectrographically, their distance can be deduced in the following way, as outlined by A. S. Eddington:

"From the visual observations the period and the other elements of the orbit can be found. The dimensions, however, are all expressed in arc—i. e. in linear measure, divided by the unknown distance of the star. From these elements we can calculate, for any date, the relative velocity in the line of sight of the two components, but this will also be expressed as linear velocity divided by the unknown distance. But by comparing this result with the same relative velocity measured spectrographically, and therefore directly in linear measure, the distance of the system can be derived."

To illustrate the principle underlying the above, imagine that, through a telescope, you should see two birds chasing each other round and round a track in the air, and keeping at diametrically opposite points of the circle, both their distance and the size

of the track being unknown to you. By simple observation you could ascertain the time that it took them to complete a circuit, and also the angular diameter of the track. Then, if you could, by any means, ascertain the actual speed, say in feet per second of the birds, you would be able to turn the angular measure of the diameter of the track into linear measure, and from that calculate the distance.

Now, in the case of a binary star, the actual speed in the orbit is given by the shifting of the spectral lines in the star's light, in case the orbit happens to lie in a plane nearly parallel to the line of sight. When that is the case one of the two stars is approaching the eye while the other is receding, and the amount of the shifting of the spectral lines due to these motions of approach and recession determines the speed.

There are other ways of inferring the distance of stars too remote to yield a parallax, so that our knowledge of the size of the universe is not confined to what we can gain from measurements based on trigonometry. The results, it is true, are only approximate, but it may be said that they are below rather than above the truth.

It is a probable conclusion that the nearest parts of the Milky Way are as much as 100,000,000,000,000 (a hundred thousand trillions) of miles from the earth, so that if its stars should suddenly be snuffed out the train of light waves stretching from them to us would continue to enter our eyes for about 17,000 years after it was cut off at the other end.

U-BOAT CHASERS REACH MALTA Valetta, Island of Malta, Jan. 2.—Thirty American submarine chasers have arrived here from Corfu. They will leave for home January 7 or 8. The crews will be given an opportunity to visit Italy and France on the homeward voyage.

WE SELL FOR LESS

Women's Up to \$25.50 COATS Friday and Saturday

Novelty Cloth and Wool Velour, in black and colors. Belted or plain models. Large collars of Plush or Velvet; some with fur. Worth to \$25.50 each, at \$14.90

# SALKINS

GOLDEN RULE DEPT. STORE

428-430 Market Street

Women's Up to \$16.50 DRESSES Friday and Saturday

Women's and Misses' New Satin, Taffeta and Serge Sample Dresses, in assorted colors. Some finished with braid and embroidery. All sizes. Special Friday and Saturday while they last, at \$8.90

## A Record-Breaking After Holiday

# \$1 DOLLAR DAY

# SALE

## FRIDAY and SATURDAY

LOT OF BOYS' WINTER SUITS

Will go on sale Friday and Saturday. They come in every new shade, tans, brown and neat mixtures. Values up to \$6.50. **\$3.90**

Offering remarkable values for a DOLLAR. EXTRAORDINARY VALUES that will make hundreds of Bargain Seekers happy Friday and Saturday. USEFUL THINGS—Just What you and your family will most need now, at savings that surpass anything offered this season. NO PHONE, MAIL OR C. O. D. ORDERS.

MEN'S SUITS AND OVERCOATS

Men's and Young Men's Suits and Overcoats, all sizes, splendid new models. Values up to \$20.00. Special Friday and Saturday \$12.90 **\$12.90**

Ladies' 79c Muslin Drawers Beautifully trimmed in embroidery only. Special, 2 pair ..... **\$1**

5 Yards of Curtain Goods Values to 25c yard. Stripes, plaids, etc. .... **\$1**

Men's 39c Canvas Gauntlet Work Gloves. Special 3 pair for ..... **\$1**

Turkish Towels 37c Heavy Turkish Towels. Four for ..... **\$1**

65c Turkish Towels, 2 for .. **\$1**

Ladies' 39c Heavy Fleece-Lined HOSE Sizes 9 to 10, with hem top and ribbed top. 4 pair, **\$1**

Ladies' Knit and Cassimere GLOVES 50c Ladies' Knit and Cassimere Gloves; most all colors. Very durable and well made; all sizes; 3 pairs ..... **\$1**

Boys' \$1.48 Corduroy PANTS Knickerbocker and straight Pants of Corduroy. Sizes 3 to 16. Special for Dollar Days ..... **\$1**

27c MUSLIN 5 Yards for .... **\$1**

35c OUTING 4 Yards ..... **\$1**

Boys' 75c BLOUSES Light and Dark Percales, Chambrays, Madras and Rep Cloth. Sizes 6 to 16. Very Special Dollar Days, 2 for **\$1**

\$1.49 BED SHEETS Snow white Bed Sheets—reinforced center seams, every one perfect. Special linen finish. Dollar Days Special ..... **\$1**

Two 89c BOYS' HATS A limited number of them; assorted styles and colors. Good materials. Special Friday and Saturday, 2 for ..... **\$1**

6 Pairs Men's 25c HOSE Fine cotton. All sizes. All colors. None better on the market. Choice Friday and Saturday, 6 pairs, ..... **\$1**

\$1.50 Silk POPLIN. Elegant quality; new shipment, comprising new early shades. Special Friday and Saturday, yard. .... **\$1**

Men's \$1.50 DRESS CAPS An assorted lot—plain colors and mixtures. Excellent quality materials. All sizes. Special Friday and Saturday ..... **\$1**

2 Garments UNDERWEAR Natural wool. Worth to \$1.00 the garment. Sizes for children. Choice Friday and Saturday, 2 garments .. **\$1**

4 Pairs 39c WOMEN'S HOSE Good brand in black and white and in all sizes. Special Friday and Saturday, 4 pair .. **\$1**

6 Pairs Infants' HOSE Nice quality. Regular 25c quality. Friday and Saturday. Choice, 6 pair for ..... **\$1**

3 Yards 47c SECO SILK Good selection of popular plain shades. Good quality. Your choice — 3 yards for ..... **\$1**

Four 37c PILLOW CASES Bleached Muslin—well made and finished—good size Come early for them. Friday and Saturday, 4 for ... **\$1**

Two 65c HOCKEY CAPS Wool Yarn—Maroon, navy, gray and combinations. For boys and girls. Special, 2 for ..... **\$1**

3 Pair 50c SUSPENDERS Just arrived in time for this sale. Good elastic web. Metal buckles. Special, 3 pair for .... **\$1**

4 Pair 39c MEN'S HOSE Cashmerette in black; 1/2 hose. All sizes. Your choice, while they last, 4 pair ..... **\$1**

Children's SWEATERS Choose from values to \$2.00 A special assortment of various styles and colors. Special, each, ..... **\$1**

6 "Arrow" Brand Collars Regular 25c kind in all the popular styles and all men's sizes. Special, 6 for **\$1**

6 Pair Women's STOCKINGS Fine Cotton Ribbed. Regular 25c kind, in all sizes. Friday and Saturday, 6 pair ..... **\$1**

\$1.50 Wool SCARF SETS Consisting of polo cap and scarf, for women and misses. Elegant combination colors. Choice, each, set, .. **\$1**

4 Yards 35c GINGHAM Your choice of well known brands. 35c values. Desirable patterns and colors. Friday and Saturday, 4 yards. . **\$1**

Girls' \$1.50 DRESSES Gingham, Percales, etc., plain effects, also plaids and stripes. All sizes. Choice ..... **\$1**

Girls' \$1.50 UNION SUITS Ribbed fleeced—well made and finished. Sizes up to 16. While they last, Friday and Saturday, the suit, ..... **\$1**

Two Pair Men's 68c HOSE Heavy wool mixtures—ideal for rough winter weather. Big value. Choice, 2 pairs ..... **\$1**

Men's \$1.50 Dress Shirts Splendid assortment. Made from Madras; plain and fancy effects. All sizes. Special, each **\$1**

4 Yards LONGCLOTH Regularly 33c a yd. goes on sale Friday and Saturday at very special prices. 4 yards ... **\$1**

Canton Flannel 33c Canton Flannel, 4 yards for ... **\$1**

WOMEN'S FALL SUITS Worth to \$20.00

Women's and Misses' Suits, Wool Serge or Wool Poplin, in latest colors. Some with velvet collar and cuffs. Others with plush shawl collar. Patch pockets and button trimming. Worth to \$20.00 each, at **\$12.85**

Ladies' 68c SILK HOSE

In black and white. First quality. 2 pair for ... **\$1**

WAISTS Women's and Misses' sizes.

White Voiles, Lawn, etc. Lace and embroidery trimmed. Special Friday and Saturday ..... **\$1**

2 Yards 79c Table Linen

58 inches wide—heavily mercerized—Choice selection of beautiful patterns. Special Friday and Saturday, 2 yards, ..... **\$1**

GIRL'S WINTER COATS

6 to 14 year sizes. Choose from heavy Winter Materials, such as Kerseys, Mixtures, Novelty Cloth, Burellas, Zybelines and Velour. Also Khaki Cloth. Full and half lined. Some quilted. All colors. Belted and large collar models of self material, velvet and plush. .... **\$5.90**