#### A Colleague's View of Major Armstrong

In "Major Armstrong: An American Tragedy" [SR Feb. 27] the career of the inventor of FM radio was characterized by R. D. Darrell as an instance of the "common tragedy of the heroic individualist in present-day society." Herewith SR presents a dissenting opinion from C. B. Fisher, a long-time professional associate of Armstrong, who is president of Radio Engineering Products Ltd., one of the leading manufacturers of electronic equipment in Canada.

By C. B. FISHER

AJOR EDWIN H. ARMSTRONG was the greatest inventor of our time, perhaps of any past time. He was also, beyond all question, a man of fine mental powers, unflinching courage, massive strength of character, unceasing industry, and simple charm. As a young man he earned, and thereafter wisely spent, a large fortune. Unequaled fame and honors did not deflect him into egotism. These things make hero worship easy for minds with reverence for greatness. They hardly justify the myth of American tragedy which R. D. Darrell offered in RECORDINGS of February 27.

There was, one guesses, private tragedy in Armstrong's life, perhaps more than in most lives of sixty-three years' duration; certainly he drank uncommonly bitter hemlock at the end. Of this I have no special knowledge, nor do I wish it. We do know, however, that his career as an inventor was a great triumph—American if you like, although his first and perhaps greatest invention was made in France—unparalleled by any great creative mind that one can easily

I knew his work and the man for twenty years, and he told me much of his earlier life. During that time I saw no sign of the struggle which Mr. Darrell rightly deems tragic, which he says men of high talent commonly wage nowadays with the society of their fellows.

For nearly forty years Armstrong was regarded as one of electronics' greatest minds by all the thousands of men with knowledge adequate for a real judgment. For thirty years past, and as far as we can see into the future, hardly a piece of electronic

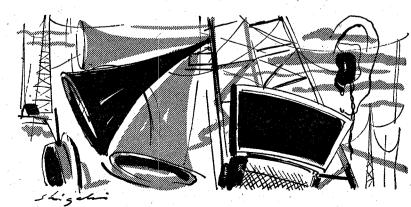
equipment did not or will not use one, two, or more of his inventions. From his early manhood earnings from his inventions made Armstrong wealthy beyond the spending ability of any sane man. For the last twenty years he was praised to the point of adulation in the technical press and engineering conferences of the world. Governments honored him with almost extravagant praise: famous universities offered him more degrees than he cared to accept: learned societies made unprecedented claims on his behalf; a great army recorded his importance in winning a global war. Could the world, in all reason, have done more for him, or done it earlier? Would more money or more praise (more recognition was not possible) have been of any real value to him? I do not think so, and I am sure Armstrong did not think so.

Armstrong loved to battle human inertia. Like all true inventors, he often professed to believe that any decision against immediate adoption of his inventions was dictated only by stupidity, cynicism, or greed. Thus, while he won all his wars, and gloried in the victories, he became heated about a few lost skirmishes. All the years I knew him, he spoke bitterly about only one major engagementthe only one he lost. This was a twenty-year legal struggle, not with one of Mr. Darrell's "cooperative quasi-anonymous research teams, dominated by large corporations,' but with Lee de Forest, another great individual inventor. They disputed priority of invention of the regenerative electron-tube circuit, and the courts ruled in favor of De Forest. It is true that the Bell System had purchased De Forest's claims (for a very substantial sum) and their lawvers handled the case. But Armstrong had at his command resources of literally hundreds of thousands of dollars, partly derived from royalties paid by his opponents.

Many competent observers felt that he could not reasonably have hoped to win a clean-cut decision over the powerful case which De Forest advanced. Actually, the Bell System (and most other large corporations in the field of communications) recognized all his patents and paid large sums for their use. Armstrong was a close friend of the senior General Electric executives, who backed frequency modulation from its earliest days and supported Armstrong's crusade in a spirit more of chivalry than self-interest. Armstrong told me that he was at one time the largest single holder of RCA stock. On another occasion he said that General Sarnoff had offered him complete control of all of RCA's vast engineering and scientific activities, with salary to match. [Editor's Note: This statement is denied by RCA sources.]

N A SUNDAY early in September 1939 I had breakfast with Armstrong in his apartment in New York. We had planned to spend the day discussing ways and means of establishing frequency modulation in every corner of the Canadian electronics industry. But early in the day news came of Britain's declaration of war on Germany and we knew that Canada would not honorably stay out for more than a few days. It seemed the

(Continued on page 53)



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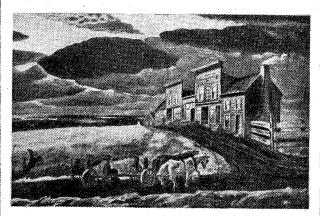
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#### Mozart with a Machine (K. 33<sup>1/3</sup>)



By REGINALD KELL

The justly renowned British clarinet virtuoso Reginald Kell tells what it's like to play Mozart's Clarinet Quintet with a phonograph. His collaborators of record were the Classic String Quartet, who have made a long series of LP discs of the standard chamber-music literature with one part missing.

OFTEN try to analyze the many different types of record collectors and group them into various clans, but I'm afraid this is a hopeless job; there are too many. The normal collector, who in some circles would be termed naive, is a person who likes to listen to a favorite piece of music whenever he feels like it. He is happy, for his listening is not geared to stomach ulcers or neurotic indulgencies—he just likes to listen to music in the home. Then we have the platoon system collector, a bizarre type liable to buy versions of the same work ad infinitum. But it is the common bulk-buyer who is the one sent from heaven to take care of the record industry. He fills closets and shelves with the things, but is no listener under any circumstances. On occasions he will decide to inflict a record recital on his unsuspecting friends, but usually contrives to talk, or shout, throughout the entire playing. And

there are many other types, all interesting characters in their own partic-

The kind of collector I am concerned with here, however, is the one who uses the medium of recorded music as a means to educate himself. both musically and technically, and who at the same time often supplies amusement for his family. The outlet for this anomaly is provided by the publication of the Music Minus One series of LP records, which offer performances of a piece of music, usually chamber music, with a single part omitted. Quite a number of string quartets and quintets have been recorded in this peculiar manner, which enables an instrumentalist to fill in the missing part, performing while the record is playing.

Being a clarinettist myself and a firm believer in "to know all is to forgive all," I ordered a copy of the Music Minus One recording

Mozart's Quintet in A major for clarinet and string quartet. My object in doing so was not to spend my spare time performing the work for my own amazement, but to discover, if I could, the fundamental satisfaction to be derived from such an excursion into this Quixotian realm of music-making.

The record arrived with a clarinet score enclosed. I waited until I was alone in the house except for our three parakeets-Winkle, Sam, and his wife Susie-who were far too interested in themselves to notice my active preparation for a performance I knew must be over before my family returned if I was to preserve my shaky dignity. Let's remember, the art in performing chamber music is to have at least a vague idea of what the other fellow is trying to do. This helps keep the music in more or less orderly fashion, for there is no room or desire for conductor participation in this friendly form of musical art. I have seen conductors insist on directing professional performances of the Schubert Octet, but to me they always look, and usually behave, like strangers in paradise. In any case, so as to give myself a sporting chance and learn just what my new-found colleagues, the Classic String Quartet, were going to do with the work, I put on the record, sat back in my chair, and listened.

AS THE composition developed it became evident that in spite of the quartet's unfamiliar name, the reading was sound, the balance was good, and the effect arresting. So much so that I spent the next hour marveling at the ingenuity of Mozart. Although an important part of this musical conversation was missing, I felt that to join in would be to intrude. The noisy return of my family put an end to my bewilderment, and so the complete performance was deferred for the time

Two days later I was alone again and able to make the second attempt. As I unpacked my clarinet I was conscious of an unreal situation: the very thought of playing along with a mechanical instrument had a childish flavor to it. Even Sam eyed me with a certain amount of suspicion, I thought. I turned my back on him and started the machine.

We had not gone very far before I realized I could not hear the Classic String Quartet while playing myself. The volume had to be turned up—too loud for normal listening-so as to balance the clarinet sound, which is transmitted to the player mostly through the head and is consequently very near to him in effect. This I adjusted, we started again, and all went

